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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

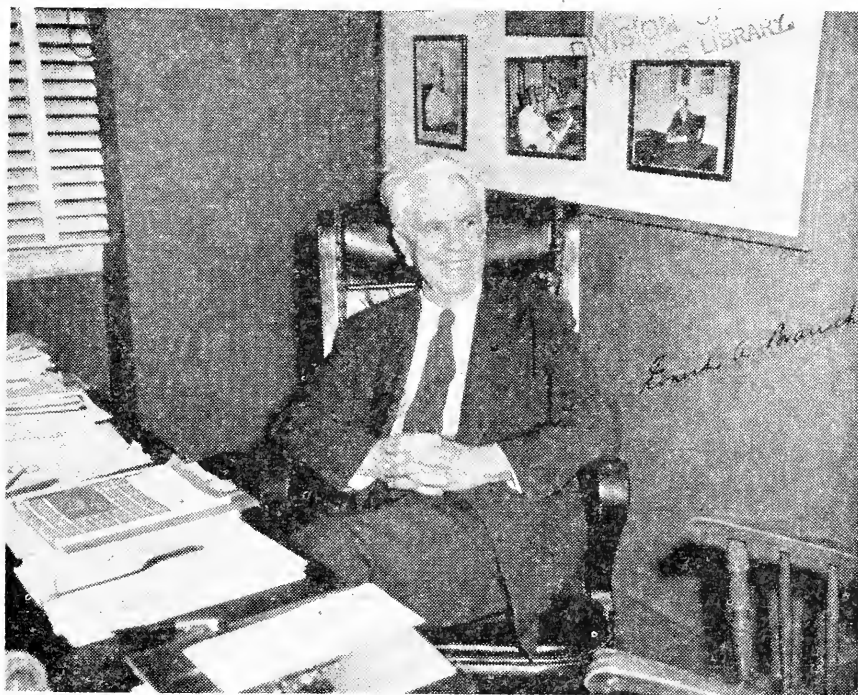
This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912
Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

January, 1959

No. 1



ERNEST A. BRANCH, D.D.S., 1888-1958

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ERNEST A. BRANCH, D.D.S., 1888-1958

Dr. Ernest A. Branch, Director of the Division of Oral Hygiene of the North Carolina State Board of Health, died on December 3, 1958. He was born on May 16, 1888, in Lumberton, North Carolina. He attended the Lumberton public schools, Oak Ridge Institute and Atlanta Dental College, now the Dental School of Emory University, from which he received the degree of D.D.S. in 1913. He engaged in the private practice of dentistry from 1913 to 1922. On June 15, 1915, he was married to Mary Emma Parker. They had two children: Mary O'Neal, now Mrs. Robert G. B. Bourne, Raleigh; and Jacqueline, now Mrs. Robert Burrage of Concord. He became Public Health Dentist for

Wake County in 1922 and continued in that capacity until 1927, when he engaged in the private practice of dentistry. In 1929 he became Director of the Division of Oral Hygiene of the North Carolina State Board of Health.

Dr. Branch was a member of the Raleigh Dental Society, the North Carolina Dental Society, the American Dental Association, State and Territorial Dental Directors, the American Association of Public Health Dentists, the North Carolina Public Health Association and the American Public Health Association, a Fellow of the American College of Dentists, and a Diplomate of the American Board of Dental Public Health. He was president

of the North Carolina Dental Society (1934), the American Association of Public Health Dentists (1941-42), the North Carolina Public Health Association (1948-49) and State and Territorial Dental Directors (1949-50).

When Dr. Branch decided to devote his professional skill to the cause of public health he realized that one of the chief needs was education in the field of mouth health. In order to prepare himself to be a better educator, he took courses at North Carolina State College in public speaking, psychology, art, advertising and kindred subjects. With skill, imagination, vision and initiative, he worked out a program of dental health education which had as its objective the prevention of dental ills and of systemic diseases of dental origin. He recruited, trained and directed a staff of whole-time dentists who worked for children in the public schools of the State. In addition to the illustrative talks to the school children, the dentists inspected their teeth and for demonstration purposes corrected the dental defects in some of the under-privileged children and referred others to private dentists. From the beginning Dr. Branch realized the value of visual education and supplied teachers with teaching aids. The "Little Jack Puppet Show," a creation of his imagination, has played in schools throughout the State for years and has done much to dispel the fear which children formerly had of the dentist. At the same time they were taught the importance of mouth health and public health in general.

Although Dr. Branch's chief concern was Oral Hygiene, he made marked contributions to many other aspects of the public health program. His accomplishments in the field of public health education have been admired by many of the full-time health educators. He did not invade the field of the nutritionist but was a most effective teacher of human nutrition. He did much to increase the consumption of milk in North Carolina, realizing that it takes calcium to build healthy

teeth. He was particularly interested in the nutritional deficiencies in the diet of children. He was among the first to realize the part which the fluorides play in the formation of teeth. When the people of North Carolina began changing their water supplies from wells and springs, many of which contained an adequate supply of fluorides, to surface waters, which were almost universally deficient in these substances, there was a definite increase in dental caries among the school children with whom Dr. Branch and his assistants worked. He therefore became one of the chief advocates of fluoridation of public water supplies in order that the deficiencies might be corrected and the young children could build teeth more resistant to decay. When one views the work of Dr. Branch during the 29 years of his service to public health, it will be seen that he has extended a helping hand to millions of children, many of whom have become parents of children whom he has also helped. The esteem and affection which he earned throughout North Carolina have been expressed by numerous people. The following is a statement by Dr. J. W. R. Norton, State Health Director:

"I am sure that I voice the sentiments of Public Health workers not only in Raleigh but throughout the State and Nation in expressing the belief that no man in this country ever made a greater contribution to the advancement of oral hygiene as a part of the public Health program than did Dr. Branch. He was a dedicated man and as such was known and respected throughout the Nation and Canada, where he spoke in behalf of oral hygiene on several occasions by invitation.

"Beginning his career as a private practitioner of dentistry, he later became so much interested in Public Health that he left his station in private life and made great contributions in county health work and since 1929 as head of the State Board of Health's dental program. One of the outstanding achievements of his career was the

creation more than twenty years ago of 'Little Jack's Puppet Show' seen by millions throughout North Carolina and known about throughout the North American Continent. He was happy that a few years ago fluoridation became available as a means of preventing dental caries. He promoted this actively in addition to better dental treatment and adequate diet.

"The work that Dr. Branch fostered will live in the hearts of North Carolinians throughout generations to come and many of his accomplishments will continue as working models for those engaged in Public Health oral hygiene. Truly, Public Health has lost a great man and humanity a staunch friend."

The Raleigh Dental Society on December 6, 1958, adopted the following Resolution:

"Whereas, The Lord has called unto Himself our loved one, Dr. Ernest A. Branch, who gave of his life for the welfare and happiness of the children of our State and Nation and who exemplified in his living the teaching of our Saviour when He said, "Suffer the little children to come unto me, and forbid them not: for of such is the kingdom of God"; and

"Whereas Dr. Branch more than any other public health worker, knew our State, its people, and their needs and dedicated a life of service and devotion to the cause of better dental health for the citizens of North Carolina; and

"Whereas, Dr. Branch, recognizing with gratitude and appreciation the contributions of others and never seeking acclaim for himself, accepted the many honors bestowed upon him with humble and gracious thanks, not only for himself, but also for all who had had a part in his achievements; and

"Whereas, The dental profession of this State, collectively and individually, are the beneficiaries of his sincerity, wisdom, and zeal in promoting and protecting the highest professional and ethical standards, thus adding immeasurably to the prestige and stature of dentistry in North Carolina; therefore, be it

"Resolved, That while we, the members of the Raleigh Dental Society, mourn the passing of our loved one whose endearing personality, unusual gift of humorous expression, superior intellect, and sympathetic nature made him a dominant figure among his fellows, we will cherish the memory of Dr. Branch as a great leader, teacher, and counselor; as a good man; and as a dear friend; and be it further

"Resolved, That we extend to the members of Dr. Branch's family and to the State Health Department our heartfelt sympathy in the great loss that they have suffered through his death; and be it further

"Resolved, That copies of this resolution be entered in the minutes of the Raleigh Dental Society and be sent to the Director of the North Carolina State Board of Health, the North Carolina Dental Society, and the members of Dr. Branch's immediate family."

At its meeting on December 18, 1958, the North Carolina State Board of Health adopted the following Resolution:

"Whereas, death has removed from our midst a most illustrious Public Health worker of the nation in the person of Dr. Ernest A. Branch, who for twenty-nine years headed the dental health program of the North Carolina State Board of Health, and

"Whereas, his professional skill, his deep sense of human value and his love for his fellow beings, especially children, eminently fitted him to perform those services to which he had dedicated his life; now therefore, be it

"Resolved, by the State Board of Health, collectively and individually, that, while we regret the passing of this great and good man, we take special pride in the work he wrought and the secure foundations he laid for continuation of the program he established; and be it further

"Resolved, that we commend not only the work he did among our children, but also the great contribution he made in bringing our people from ignorance to enlightenment concerning the pro-

tection afforded through fluoridation of our public water supplies; and, further, be it

"Resolved, that copies of this resolution be spread on the minutes of the Board, furnished the press, published in the **Health Bulletin** and given to the Executive Secretary of the North Carolina Dental Society and to the members of Dr. Branch's immediate family."

Dr. Branch's funeral was held at the Pullen Memorial Baptist Church on December 5, 1958. The Reverend Mr. William Finlator conducted the service. One of his prayers so fittingly expressed the feeling of all who knew Dr. Branch that we quote it:

"Eternal God our Father, whose pity is infinite and whose will is sovereign, from whom we come, unto whom we return, and in whom, while we tarry here, we live and move and have our being: draw nigh unto us in this hour of sadness and separation and grant us light in our darkness, hope in our despair, and peace in our confusion. Whom have we on earth beside Thee, whom in heaven but Thee?"

"Give us grace under this so sore affliction to feel the healing, strengthening presence of Thy Son our Saviour who Himself was a man of sorrows and acquainted with grief. May our souls grow calm through the patience and comfort of the Holy Scriptures and the presence of dear friends who have come to share our burden. And oh, let the deeps within us affirm the song just sung that there is 'joy that seekest us through pain', an authentic voice speaking Thy solemn messages through the very heart of grief and loss and loneliness.

"We thank Thee for the gracious memories that gather around the gen-

tle soul departed; for his simple creed of kindness and good will; for his love freely given and modestly received; for his freedom from shame and pretense, for his love, like the Saviour's, for flowers and children; for his early discovery of the adventure of his special service and his unswerving loyalty and quick responsiveness in doing it; for all in home and in friendship that made him lovable; and now at last for his quiet release from the burden of the flesh and an abundant entrance into the peace prepared for those that love Thee and serve Thee. The Lord hath given, the Lord hath taken away. We bless Thy name, O Lord.

"But grant that those who most deeply mourn his passing may not murmur, that in their perplexity they may not be without hope. Enshrine in their hearts as well as in their memory those qualities of soul that made his life so commendable. May they return to the cycle of common tasks to take up their duties more bravely for the sake of him whom here they see no more in the assurance that Thy children, whether here or yonder, are always in Thy keeping, and that nothing in life or death can separate us from the love of God which is in Christ Jesus our Lord.

"And to all of us who gather in this common sorrow grant that we shall live as those who are prepared to die so that when our summons comes, whether soon or late, we shall die as those are prepared to live that, living or dying, we may know that the Eternal God is our refuge and underneath are the everlasting arms. Through Jesus Christ our Lord. Amen"

NOTES AND COMMENT

SCHOLARSHIP

Applications for the scholarship being offered by the North Carolina Public Health Association are now being accepted. Particularly those people who, because of age or length of

experience in public health, are not eligible for the federal traineeships will be interested in this scholarship. There is no age or experience limit for the scholarship the North Carolina Public Health Association is offering. If a

person is eligible for admission to the School of Public Health, University of North Carolina, he is eligible to apply for the scholarship. The scholarship will pay in-state tuition and fees for one academic year.

Applications must be made on prescribed forms which may be obtained from Dr. B. G. Greenberg, School of Public Health, University of North Carolina, Chapel Hill, North Carolina. The application must be returned to Dr. Greenberg by May 1, 1959.

LEG BLOOD MOVEMENT MAY HELP PREVENT CLOTS

Keeping a patient "walking" during surgery may prevent the formation of death-dealing blood clots, two Canadian surgeons have suggested.

When movement in leg muscles is reduced—as during surgery—the blood pools in the legs and conditions are set for the formation of blood clots.

By keeping the patient "walking" through the electrical stimulation of the leg calf muscles, this pooling is reduced. The stimulation causes the muscles to contract as they do in walking and to act as a pump, forcing the blood back to the heart.

When clots form, parts of them may break off and move through the vessels, eventually blocking the artery between the heart and lungs. This condition, known as pulmonary embolism, frequently causes death.

Pulmonary embolism is now the commonest single cause of death following major surgical procedures, Drs. John and Angus D. McLachlin said in *Archives of Surgery*, published by the American Medical Association.

They believe that blood pooling (venous stasis) in the legs is the prime factor in pulmonary embolism, although it has not been definitely proved. Prevention of pooling would lessen the possibility of clot formation.

The doctors have used skin electrodes similar to those used in the study of the heart's electrical activity. The electrodes are placed on the legs and

the closed electrical circuit produces regular contractions of the calf muscles during the operation and until the patient is conscious enough to move about.

"There seems no doubt that blood can be kept moving in the legs in this physiological manner," they said.

Since the role of venous stasis in pulmonary embolism is not definitely proved, "Only time and an adequate number of cases will let us determine whether keeping the 'peripheral venous heart' active during operative procedures will lessen the frequency of pulmonary embolism," the doctors concluded.

The authors are members of the department of surgery at the University of Western Ontario Faculty of Medicine, London, Ont.

INFECTED ANIMALS CAN CAUSE RABBIT FEVER

If you skin or clean wild animals, you may be in danger of acquiring rabbit fever.

According to a health column in *Today's Health*, published by the American Medical Association, rabbit fever (tularemia) is one of 83 diseases of animals transmissible to man.

The disease is common in rabbits, field mice, opossums, squirrels, coyotes, skunks and other small wild animals. It is fatal to the animals.

If an animal seems unusually tame or runs sluggishly when flushed, he may have tularemia, and hunters should be wary of killing and taking the animal home.

The article said that hunters, housewives, and vendors who skin and clean infected animals can acquire the disease through an abrasion or even apparently unbroken skin.

Symptoms in humans include headache, chills, fever, general weakness, backache, joint pains and prostration.

Antibiotics can cure the disease, but the column listed certain precautionary procedures which include:

—Wearing rubber gloves when skin-

ning animals.

—Washing blood from the skin with plenty of soap and water followed by the use of a disinfectant.

—Calling your doctor and going to bed if you think you have tularemia.

ILLNESS IS NOT ONLY CAUSE OF SICKNESS ABSENCE

So-called "sickness" absence from work is not necessarily the result of disease or injury.

It may be that the worker is not willing to be there and uses illness as an excuse.

A worker must be "willing and able" to be on the job. If one of these conditions is not satisfied, he will be absent.

Work absence cannot be eliminated, but it can be cut down. Some of the ways in which this can be done are suggested in a special article in the *Journal of the American Medical Association*.

The first step is to understand the real reason for absence; there are some 14 factors which are related to or influence it.

The first two are physical and emotional health, the only two that are strictly within the realm of the doctor. Yet industrial and family physicians must understand and deal with the others.

Among them are the worker's adjustment to his job as it is influenced by a number of factors, including his education and training and his assignment to the proper job.

Others include the worker's reactions to his supervisor, his associates on the job, his family and friends. The physical environment of the work and the economic aspects of the job also affect the worker's presence or absence.

One study showed that only 35 per cent of persons with more than four absences in a six-month period felt they had enough responsibility, while 65 per cent of those with only one absence felt they had enough.

This illustrates the correlation between employee attitudes about their

jobs and their attendance on the job, the article said. This kind of relationship also holds true for other factors such as whether the worker feels free to discuss personal problems with his supervisor; feels that he is a member of the group; feels that the company is using his skills to his best advantage, and feels that he has a chance of promotion.

"One step toward understanding, predicting, and coping with absence lies in discovering such associations," the article noted.

A program of counseling and preventive medicine must be set up by the industrial medical service.

Actually the function of the medical department is a dual one, the article said. It must work toward obtaining a low "illness rate" for organic and serious mental illness, and it must help management reduce the "absence rate" that is due to reasons other than organic illness.

Probably 90 per cent of time lost is on account of non-occupational disease and injury, which is treated by a family doctor. Therefore, the family doctor must understand the elements of work absence and establish a close working relationship with industrial physicians.

The article, prepared by the Committee on Medical Care of the Industrial Worker of the A.M.A. Councils on Industrial Health and Medical Service, is a compilation of quotations from various sources on different aspects of the work absence problem.

MATERNAL DEATHS HALVED IN 11-YEAR PERIOD

The proportion of women dying in childbirth has been reduced by more than half since 1946, two New York physicians said recently.

The past few years have been a period of "phenomenal growth and accomplishments unmatched in the history of obstetrics," they wrote in the *Journal of the American Medical Association*.

According to the United States National Office of Vital Statistics, the number of deaths per 10,000 live births has decreased from 11.6 in 1946 to 4 in 1956.

In Bronx county the number has dropped from 16.3 to 7.2. The figures for Bronx county are about 25 per cent higher than those for the U. S., the doctors said, because the Bronx study included all deaths of women within 90 days of delivery, regardless of the cause.

The five major causes of maternal deaths in Bronx county were infection, anesthesia, toxemia, hemorrhage and heart disease.

According to cause of death, the percentage of decrease in maternal mortality between the first and second halves of the 11-year study period were: infection, 80 per cent; anesthesia, 65 per cent; toxemia, 45 per cent; hemorrhage, 24 per cent; and heart disease, 21 per cent.

Although infection accounted for only 10.2 per cent of all maternal deaths, it showed the greatest reduction as a cause of maternal death.

"Were it not for the large number of deaths due to criminal abortion, which often does not respond to the antibiotics, infection would be eliminated as a leading cause of maternal death," they said.

As an adjunct to antibiotics, blood transfusions have also helped reduce the number of deaths from infection, since infection often follows inadequately treated hemorrhage.

New blood pressure-lowering drugs and diuretics (drugs which facilitate the loss of fluid by the body) help control toxemia, a condition in which there is a general "poisoning" of the system.

New developments in anesthesia and the increasing number of qualified persons to administer it have made anesthesia safer and reduced complications.

The most frequent cause of maternal deaths was hemorrhage, accounting for 19 per cent. The decrease in deaths

was primarily due to the more liberal use of blood transfusions, the doctors said.

Other factors contributing to the decrease include education of the public concerning the importance of early prenatal care and good medical care; improved hospital facilities and more rigid hospital rules and regulations pertaining to obstetrical practice, they added.

The authors are Dr. Milton D. Klein and Dr. Jacob Clahr, members of the Bronx County Medical Society's committee for maternal welfare.

RULES LISTED FOR GIVING MEDICINE TO CHILDREN

Giving medicine to a stubborn child is like any other "do-it-yourself" home project.

A Norfolk, Va., pediatrician, Dr. Forrest P. White, listed in *Today's Health*, an American Medical Association publication, some rules and techniques for giving medicine to children.

His general rules are:

—Plan the procedure first. Have all equipment within reach. If two adults are involved, decide what each will do.

—Put the medicine bottle where the child can't knock it over, especially if it is expensive.

—Assume from the first that you are going to succeed. This conviction alone may persuade the child that he may as well cooperate.

—Don't let your child's excitement infect you. Keep calm. If you feel anger, don't show it. Just keep talking to the child calmly and soothingly, even when he's yelling his head off.

—When a liquid medicine is given and the child vomits afterwards, wait till he calms down and then repeat it. Usually it will stay down the second time.

Dr. White said that when two parents work together—or gang up from the child's point of view—the father holds the child on his lap and holds the child's wrists, while the mother steadies the child's head and forces his mouth open.

When only one parent gives the medicine, he holds the child on his lap with the child's legs between his knees. The child's left arm is kept behind the parent's back and the parent uses his right hand to hold the child's right elbow so the arm is above the head. The child's head is held against the parent's body and child's upraised right arm.

Dr. White recommended that when forcing medicine, it is often best to give only half a teaspoonful at a time.

For the unusually rambunctious youngster, he suggested pouring half a teaspoonful into each of two spoons, putting them on the table, returning the bottle to the shelf and then getting the child.

The spoon should be placed on the tongue and held there, tipping it to pour a small amount at a time onto the back of the tongue. As long as the spoon is held in place, the child can't spit the medicine out and has no choice but to swallow, Dr. White said.

Almost any child resisting medicine will open his mouth to cry, allowing the spoon to be inserted. If instead he clamps his mouth shut and the mother needs both hands free, she should wrap the child snugly in a sheet or blanket with his arms against his sides. Then the mother can force the child's mouth open with one hand and insert the spoon with the other.

Nose or eye drops can also be administered with the child wrapped in a blanket or sheet.

In conclusion, Dr. White noted that the parents, after administering the medicine, should give the child all the love and sympathy he needs.

VITAMIN SUPPLEMENTS UNNECESSARY FOR MOST PERSONS

Vitamin supplementation is unnecessary for normal persons following an adequate diet, the American Medical Association's Council on Food and Nutrition has said.

"Vitamins are essential nutrients, and their usual source is food," the council said in a report in the A.M.A.

Journal. All the nutrients essential to the maintenance of health in the normal individual are supplied by an adequate diet—one that meets the Recommended Dietary Allowances developed by the Food and Nutrition Board of the National Research Council.

These recommended levels of nutrients are believed to be adequate for maintaining good nutrition throughout life, and supplementation by vitamin preparations is in most instances unnecessary, the council said.

It criticized certain nutritional surveys which have indicated that "a variable fraction of certain segments of the population" is not receiving sufficient varieties of foods to supply the necessary vitamins.

Commenting on the surveys, the council said "generalization of these findings as a basis for vitamin supplementation of healthy individuals is not rational. The methodology employed in these surveys and the standards used for interpretation have varied considerably. It is necessary for the physician to evaluate each person individually."

The council agreed, however, that there are some situations where vitamin supplementation is both necessary and desirable.

For instance, it may be useful "during periods of illness or a deranged mode of life which may result in impairment of absorption of nutrients or deterioration of dietary quality."

It may be of value to the individual who "through ignorance, poor eating habits, or emotional or physical illness does not eat an adequate diet." For these patients, the physician's primary responsibility is to try to remove the disturbing factor. Until this can be done, supplementary vitamins are valuable in assuring an adequate intake.

The council noted that infants should receive supplements of vitamins C and D if their diets do not supply 30 milligrams of vitamin C and 400

U.S.P. units of vitamin D, the recommended daily amounts.

Healthy children fed adequate amounts of wholesome foods need no supplemental vitamins except vitamin D. Even here, vitamin preparations are unnecessary, since the vitamin D can be obtained by drinking vitamin D-fortified homogenized milk.

Adults who must follow restricted diets because of an illness, such as diabetes or stomach ulcer, may need specific vitamin supplementation. The character of the supplementation will depend on the diet, the nutrients given and the length of time the routine must be maintained, the report said.

In addition, healthy persons may benefit from supplementary vitamins at certain special periods of life, such as during pregnancy and lactation.

Concerning multivitamin combinations, the council noted that such preparations should contain only those vitamins shown to be essential in human nutrition or metabolism. The unit quantities of vitamins included in mixtures should furnish no more than those amounts necessary to fulfill the Recommended Daily Allowances.

The physician should be careful, the council warned, that his recommendations are not increased in amount and that his patients do not follow the precept that greater concentrations of vitamins are justified in light of the little additional cost.

It is not true that "if a little is good, more would be better," the report said. In fact, an overdosage of vitamins A or D can be harmful.

There is no good reason for the inclusion of minerals with vitamins, except perhaps in the case of iron and calcium. These would then be used in such situations as pregnancy or lactation.

In conclusion, the council said "public health will be served best by insistence on a factual basis for vitamin supplementation and therapy. It is sound judgment to emphasize repeatedly that properly selected diets are the primary basis for good nutrition."

ARTICLE REFUTES CLAIMS OF FOOD FADDISTS

Americans actually have to go out of their way to avoid being well nourished.

Yet thousands of food supplement salesmen are trying to convince people that improper diet is to blame for most disease and that it can be cured by taking food supplements.

The food supplement business is a multi-million dollar one. It could be considered a "mildly amusing confidence game" except that it is also highly dangerous, according to an article in *Today's Health*, an American Medical Association publication.

It is dangerous because persons with serious ailments neglect proper medical treatment in the hope that they can find "a cure in a capsule."

Food supplements are pills, powders, pellets or capsules that often contain vitamins and minerals, usually in amounts far greater than the body needs, and some "mysterious ingredient" that is usually nothing more than a combination of dehydrated vegetables and plants.

The seven most popular pitches used by the self-styled "nutritional advisers" in selling their supplements are outlined—and refuted—by Joseph N. Bell, Chicago, in the *Today's Health* article. It is part of a campaign being conducted by the A.M.A., the Food and Drug Administration and the National Better Business Bureau to combat food faddism.

The pitches are:

—Most disease is due to improper diet. The fact: There are a few diseases caused by dietary deficiencies, but they are rarely found in the United States. By patronizing all departments of a grocery store, a person can easily supply all of his nutritional needs.

—Soil depletion causes malnutrition. The fact: The composition of the soil has very little effect on the composition of plants grown on it. If certain soil elements are missing, the plants simply don't grow.

—Chemical fertilizers poison the land

and the crops grown on it. The fact: Extensive government research has shown that the nutritional value of crops is not significantly affected by the soil or the fertilizers used.

—Wonder power of wonder foods, such as 100 per cent whole grains—cereals, flour, bread and crackers; honey; maple syrup; blackstrap molasses, or raw vegetables. The fact: These are good foods, but they are no wonder foods and do not supply any miracle nutrients.

—Certain types of cooking utensils, especially aluminum, are harmful to foods. The fact: The U. S. Public Health Service says hospitals the country over use aluminum cooking utensils. They certainly would not if research had given the slightest suspicion of danger from it.

—Processing removes nutritional values from food. The fact: Modern processed foods actually contain more nutrients than the same foods prepared by home cooking methods. Fruits and vegetables are canned or frozen at the peak of nutritional perfection, and flour, bread, milk and margarine are all improved in processing to supply known dietary requirements.

—Subclinical deficiencies are a constant danger. The fact: This statement has no meaning. Subclinical means without symptoms. Normal tiredness or "a worn out feeling" is said by the peddler to be a subclinical deficiency. If such feelings persist, a competent physician should be seen. They may be the forerunner of serious disease.

In conclusion Bell said, "If you suspect a diet deficiency don't let quacks prescribe for you. Consult your physician . . . Eat sensibly, eat intelligently, eat economically—and for goodness sake, eat **FOOD.**"

A.M.A. UNVEILS NEW AGING PROGRAM

A promise of more useful and productive lives for the aging population has been made by the American Medical Association's Committee on Aging.

This assurance was given to a medical society planning conference in

Chicago as part of a twofold program of individual and community action to achieve these ends.

In summarizing three years of concentrated activity in the field of aging the committee placed great stress on individual action.

"The major scourges of aging man are largely the result of faulty diet, flabby bodies from poor hygiene, excessive fatigue and aimless living," the committee said.

A plan for "positive health" was suggested by Dr. Edward L. Bortz, Philadelphia, a member of the A.M.A. committee, who cited the 10 basic needs for older persons:

—A balanced diet, including more protein, vitamins and fluids; less fats and calories.

—Regular elimination of waste products.

—Adequate rest of both mind and body.

—Pursuit of interesting and specific recreational activities.

—A sense of humor, which is the best antidote for tension.

—Avoidance of excessive emotional tension which leads to personal ineffectiveness.

Mutual loyalty of friends and family.

—Pride in a job.

—Participation in community affairs.

—Continued expansion of knowledge, wisdom and experience, which add to maturity.

Dr. Bortz termed these 10 points a "do-it-yourself" program which should allow the average healthy man and woman to live 100 years with much less suffering and deterioration than is now occurring.

He said the two major elements in prolonging life are the preservation of energy and a high degree of motivation. The first is maintained through proper diet, exercise and rest, while the second comes from purposeful, useful activity.

"Useful activity" the doctor said, "provides high and specific motivation—a justification for living these added years. When the incentive, the zest for living, is lost, senility is inevitable."

His thoughts were echoed by Dr. Theodore G. Klumpp, president of Winthrop Laboratories, New York, who said, "Based on loss of motivation and interest and to a large extent because of the fear psychosis against exercise and exertion, our middle aged and older people reduce their physical activities with damaging if not disastrous results.

"I believe that we must do everything we can, as we grow older, to resist the inclination to slow down the tempo of our living. I am convinced that, if you will just sit and wait for death to come along, you will not have long to wait."

The role of the community in helping the aging was outlined by Dr. Frederick C. Swartz, Lansing, Mich., committee chairman, in a six-part program. Designed to supplement individual health plans, the program calls for:

- Stimulation of a realistic attitude toward aging by all people.

- Extension of effective methods of financing health care for the aged.

- Expansion of skilled-personnel training programs and improvement of medical and related facilities for older people.

- Promotion of health maintenance programs and wider use of restorative and rehabilitative services.

- Amplification of medical and socioeconomic research in problems of aging.

- Cooperation in community programs for senior citizens.

Dr. Swartz said. "It is the duty and responsibility of the state and county medical societies to study the situation of the aging population in their own states.

"The panorama is rapidly changing and if the state and national committees on aging work hand in hand, we may find an answer for many situations before they become problems."

The American Medical Association hopes these programs will provide a foundation upon which a "new world of aging," reaffirming the worth and responsibilities of individual and family, can be built.

JOBS MAY BENEFIT HEART PATIENTS

Suitable work may be more beneficial than rest and retirement for persons with severe heart disease, a Brooklyn, N. Y., physician has stated.

Dr. Alvin Slipyan studied 19 persons who would normally be considered to be unemployable but who were successfully working in industrial and clerical jobs.

The physical condition of some of them actually improved after they started working.

Most industries refuse to hire cardiac patients because of the fear of absenteeism and compensation claims. Among these 19 persons, the low absenteeism rate was remarkable, Dr. Slipyan said, and there were no compensation claims.

On the basis of his study, he suggested a possible change in the rule that persons with severe heart disease require constant rest and retirement from work.

Included in the study, reported in the Journal of the American Medical Association, were 10 persons who had had heart attacks (three with two attacks), seven with rheumatic heart disease and two with hypertensive heart disease.

They were employed by Abilities, Inc., an Albertson, L. I., N. Y., company employing only disabled persons.

Among the patients with postmyocardial infarction, the age spread was from 26 to 63, with eight over the age of 50. Their jobs included office and plant bench work. The jobs all required the effort of walking, but none heavy labor. Some of these people had been unemployed for as long as four and a half years before taking jobs at Abilities, Inc.

Travel time—a factor that can influence the success or failure in a job—ranged from 15 to 45 minutes a day and the distance from 5 to 30 miles. Seven drove their own cars.

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The

Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request.

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

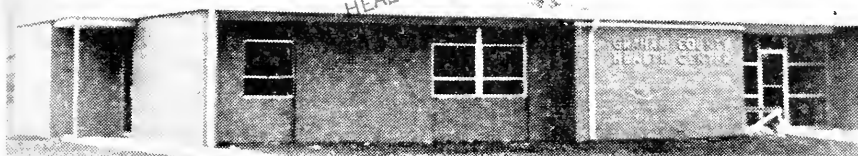
Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

February, 1959

No. 2

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YOUR DOCTOR'S GUIDANCE

By William H. Richardson
 North Carolina State Board Of Health
 Raleigh, N. C.

This is the second in a series taken from the publication, "The Pre-School Years". This book was written for the New York State Department of Health and is distributed free in this State by the North Carolina State Board of Health. We are going to consider today the subject of Chapter 2: "Your Doctor's Guidance". Until otherwise indicated, we shall be quoting from the publication just referred to.

"It is important that you take your child to his doctor for periodic check-ups right from birth. Modern medical care goes beyond the aim of prevention

of illness. Doctors more and more stress that health is not mere absence of disease—and they are interested in seeing that children in their care reach the highest possible level of health and well-being.

"For this reason your doctor is interested in everything that builds your child's health—all the way from immunization against specific diseases and establishment of sound eating and sleeping habits to formation of healthy emotional relationships and satisfactions for his growing mind. This is a large order, but it is certainly worth-

while. It is a job that you and your doctor can carry out together.

"Your doctor will want to protect your child from contagious diseases starting as early as the first three months of your baby's life. Triple vaccine, which gives protection against diphtheria, pertussis (whooping cough) and tetanus (lockjaw), may be given in three doses approximately one month apart. Children also need booster shots at varying intervals to keep up their protection. A booster triple vaccine shot may be given between twelve and eighteen months of age and again between three and four years of age.

"Vaccination against smallpox is also recommended within the first six months. Some parents believe that children need not be vaccinated until they go to school. It is true that in many school systems vaccination before entering school is compulsory, but that does not mean it should wait until then. Infants should be vaccinated early in life so they can be protected against smallpox just as soon as possible. Also infants usually have less reaction to vaccination than older children. Re-vaccination is advised every five years, before going abroad and in the presence of an epidemic.

"Vaccination against poliomyelitis is also given within the first year. At present two doses of vaccine are given about one month apart with a third dose about seven months later. Eventually more booster shots may be recommended.

"Most babies take their visits to the doctor calmly, with no more than an occasional brief yell of protest at the needle. The child of two or three or more is likely to go through a phase of protesting against his regular visits to his doctor's office. Eventually most children learn to take them in their stride and may even look forward to their visits with the doctor.

"If your child does protest, tell him the truth about where he is going. Do not say, 'We are going for a nice ride,' and then spring the visit to the doctor

on him unexpectedly. This may cause your child to lose his trust in you, and the chances are that he will protest more rather than less when he finds he has been tricked into going.

"Tell him the truth, too, when he asks whether the doctor will hurt him. If you know that he is going to get some kind of immunization, tell him that it will hurt a little, 'like a little mosquito bite.' Actually, a good hard bump of the kind that every active child gets in his daily play hurts a lot more than the prick of the needle. Holding the child comfortably and firmly while he receives his treatment is usually helpful. And there is nothing wrong with a child's crying a little if he feels like doing so. This helps him give vent to his feelings.

"It often helps a young child to feel more at home in a strange situation if he has one of his favorite possessions with him—a doll or a stuffed animal, for instance. If your child is timid about going for his check-up, suggest that he take something along to show his friend the doctor. Mothers sometimes forget that it is important for a youngster to get to know the doctor as a friend. Let the child talk to his doctor even though it may be nothing more than telling him that he is going to get a pair of new shoes on the way home.

"Of course, you will want to talk to the doctor, too. Do not hesitate to ask him about your child's general health, his diet or any behavior that has been worrying you. It may be a good idea to jot down questions as they occur to you, so you do not forget them once you get in the doctor's office.

"The freer and friendlier a child feels with his doctor when he is well, the more likely he is to be cooperative and unafraid when he is sick.

"If your child does not act as cooperatively as you would like when he is at the doctor's office, do not scold or punish him afterwards for his trying behavior. No matter how well you have tried to prepare him for the visit he may still be somewhat fearful. It takes

quite a while for a child to feel at ease in strange places and with strange people. He will get over it in time. And do not feel that you are at fault either—a doctor does not hold children's tears or protests against either child or parent, because he understands children's feelings.

"It is wise never to threaten your child by saying that you will call the doctor. If you say, 'Put your sweater on, Billy, or you will catch cold and I will have to get the doctor,' you may think you are simply stating a fact. But a child may interpret this remark to mean, 'If you do not obey, I will call the doctor.'

"Call the doctor if your child seems ill. A child does not necessarily have to have a fever to be ill. Unusual tiredness or crankiness without apparent reason or just not acting like himself may be the first sign of an oncoming illness.

"Medicines of even the simplest variety should never be left in a child's room. Sweetened and flavored pills or cough syrups are a great help, but they can also be a source of grave danger just because they taste good. Left over medicines which have been prescribed for a special use should be emptied into the toilet bowl. All other medicines should be kept in a locked chest.

"Dental care is also very important during early childhood. Such care aims to prevent dental defects as well as to treat those that may develop. With the advice and help of the dentist, much can be done at home to promote healthy teeth.

"Young children need the proper body-building foods. Offering fresh fruit may help prevent the habit of nibbling candy or sucking lollipops between meals; sugar and other sweets in the mouth tend to cause tooth decay. See that your child brushes his teeth immediately after meals whenever possible.

"Most toddlers are delighted to have a toothbrush of their own. Get one for your child just as soon as he can handle it—at least by the time he is

two-and-a-half. Do not worry if at first he does not brush correctly. As he learns to handle the brush better, you can teach him to brush his teeth properly, the way they grow. By the time he is four years or so, he will have learned to brush the upper teeth down and the lower teeth up, away from the gums.

"Besides such home hygiene, children need the care of their dentists from an early age. Many parents have the notion that since the first teeth fall out in due course, it is unnecessary to take much care of them. But the first teeth are important and should be as carefully cared for as permanent teeth, since they help to keep the jaw in shape until they are replaced by the permanent teeth.

"Regular visits to the dentist should start at two-and-one-half to three years of age. This enables the dentist to check small cavities before they become large and painful. And since decay in children's teeth may develop more rapidly than in adult teeth, ask the dentist whether he would like to see your child more frequently than the standard six-month interval.

"You will want to prepare your youngster ahead of time for his first visit to the dentist. Tell him about some of the things that he will see and things that he will be asked to do. Dental equipment is often frightening to young children. It is often helpful if a child has a first and perhaps a second visit when no actual treatment is done.

"Nowadays, many communities add small quantities of fluorine to the drinking water in order to reduce tooth decay. In places where this is done, decay is cut by more than half. If you do not live in such a town, check with the dentist about his applying sodium fluoride to your child's teeth at regular intervals. This is most valuable if it is started early in life, and it is every bit as important as other preventive health measures. It will reduce tooth decay by about forty per cent."

DR. PEARSON SUCCEEDS DR. BRANCH

Dr. J. W. R. Norton, State Hospital Director, has announced the appointment of Dr. E. A. Pearson, Jr. as Director of the State Board of Health's Division of Oral Hygiene, succeeding the late Dr. Ernest A. Branch. Dr. Pearson has been connected with the State Board of Health since January, 1965. In July, 1958, he became the Assistant Director and conducted the affairs of the Division during the last illness of Dr. Branch.

Dr. Pearson is a native of Sampson County. He received his early education in the public schools there, later attending Campbell College, in this State, and Maryville College, in Tennessee, from which he received his baccalaureate degree. He was graduated in dentistry from the School of Dentistry of the Medical College of Virginia June 3, 1941. In June, 1958, Dr. Pearson was awarded the degree of Master of Public Health from the School of Public Health of the University of North Carolina.

Upon graduation from the Medical College of Virginia Dr. Pearson was appointed to the position of public health dentist with the Wake County Health Department. This service was terminated by his entrance into the Navy Dental Corps in January, 1942. Dr. Pearson saw active duty with the Fleet Marine Force in the Solomon Islands. At the time of his discharge in 1946 he held the rank of Lieutenant Commander. Following his military service, Dr. Pearson engaged in the private practice of dentistry in Raleigh for ten years.

Dr. Pearson holds membership in the Raleigh Dental Society, the Fourth District Dental Society, the North Carolina Dental Society and the American Dental Association. He was a member of the Executive Committee of the North Carolina Dental Society from May, 1955, through May, 1958. Dr. Pearson now holds the presidency of the Fourth District Dental Society.

NOTES AND COMMENT

MEN ARE MORE SUCCESSFUL THAN WOMEN AT DIETING

Men are more successful at losing weight than women, a new review of medical reports shows.

Writing in Archives of Internal Medicine, published by the American Medical Association, Dr. Albert Stunkard and Mavis McLaren-Hume, M.S., said, "Sex of the patients has not, to our knowledge, been previously suggested as a possible factor in the success of efforts at weight reduction.

"We were, therefore, surprised to discover that whenever results of treatment have been reported according to sex of the patient, men have been shown to be more successful than women."

In three separate studies "a far higher percentage of men than women were able to achieve the modest success of a 20-pound weight loss." The dis-

crepancy between the results of treatment for men and for women is even more pronounced if 40 pounds is considered as a criterion of success, the authors said. They offered no reason for the success of men.

At least three other possible criteria for predicting success have been suggested. They are the presence of the "night-eating syndrome," in which the patient eats at night; the outcome of previous attempts at dieting, and the amount of anxiety in the patient.

The authors found in a review of the literature and in a study of 100 patients at New York Hospital that none of these had any validity as indications of success at weight reduction.

In commenting on the treatment of obesity, the authors said, "In recent years the ill effects ascribed to excessive body weight have received wide attention, as have the benefits to be

achieved by weight reduction.

"As a result many physicians and their patients, who had formerly looked upon weight reduction as a cosmetic conceit, have come to consider it a therapeutic imperative. A variety of lay institutions, notably the magazines for women, has seized upon this growing interest in weight reduction and has helped to magnify it to the proportions of a national neurosis."

They noted that weight reduction is a very difficult business. For success to occur, patients and physicians alike must give up the naively optimistic idea that weight reduction will occur as a matter of course once treatment is begun and realize that treatment is more than just prescribing and following a diet.

When treatment for obesity is undertaken, it must be conducted by a qualified physician and not by nonmedical persons.

Dr. Stunkard is a psychiatrist at the University of Pennsylvania School of Medicine, who has extensively studied the problems of obesity treatment. Miss McLaren-Hume is a member of the staff of the department of nutrition at the New York Hospital.

BOYS RANCH FOUNDER LISTS CHILD REARING PRINCIPLES

A boy needs parents, not push-overs, according to Cal Farley, founder of Boys Ranch at Amarillo, Texas.

The principles of rearing a boy are "deceptively simple. Maybe that's why they are so easily forgotten—or not properly learned," Farley said in *Today's Health*, published by the American Medical Association.

Boys Ranch accommodates 220 youngsters and is expanding its facilities for another 500. In 20 years, 1500 boys—most from homes broken by family trouble or death—have lived at the ranch. About 40 per cent of the boys were in some kind of trouble with the law and the others were headed that way.

Only 37 boys were failures, Farley said. The ranch has no special discip-

linary staff member. Every adult has authority over a boy while with him.

"This way, the boy learns to respect and obey all adults. Equally important, when a boy steps out of line we correct him immediately," Farley said. "Just keep boys on the beam, supervise and teach them until they finally understand and they'll turn out okay."

Farley listed the five guiding rules for rearing boys at Boys Ranch. They are:

—Teaching the boy to obey. This is the most difficult job and the most important. When a child is allowed to set his own rules he will grow up without any rules at all.

Living with the boy. By helping him to enjoy his youth, he can be shown how his boyhood years can be used to equip himself for manhood.

—Being specific with the boy. Adults should let him know where they stand—and therefore where he stands. Then he is not confused by doubt, uncertainty, or conflict.

—Giving him responsibility. By making a boy feel part of the working team at the ranch (or at home), he will understand how to be part of the team in whatever sphere of life he enters.

—Loving him. The boy must be shown that love can't be measured by what one gets or gives but in how one conducts himself. It is a kind of mutual respect.

NEW TREATMENT APPROACH SUGGESTED FOR EMOTIONAL ILLNESS

A new approach to the treatment of emotional illness has been suggested by two New York psychoanalysts.

They believe that many emotional illnesses are at least partly the result of a person's "quest for certainty." The neurotic behavior represents a means of obtaining certainty.

Most neurotic persons repeat their behavior over and over; they are certain of its outcome and refuse to risk trying a new approach to their problems.

Nearly all the categories of emotion-

al illness may be interpreted as resulting from a quest for certainty, Emanuel K. Schwartz, Ph.D., and Alexander Wolf, M.D., said in *Archives of Neurology and Psychiatry*, published by the American Medical Association.

For example, the schizophrenic person withdraws from the threatening environment to the security of his own internally remade world; the depressed person feels that if he withholds all criticism, anger, and aggression, he will be certain not to provoke or to incur the dangers of the hostile and destructive forces around him.

The perfectionist feels that if he is perfect, if he is certain to make no mistakes, he cannot be punished or endangered. Even the hypochondriacal person uses his pills as a way of finding certainty. By taking them, he is certain that he can get through the day.

By approaching such patients through the concept of the search for certainty, psychotherapists may be able to help some patients toward a more healthy mental state, the authors believe.

The "quest for certainty" is tied up with an individual's ability to assess the probabilities of success or failure and safety and danger in a situation and his willingness to take risks.

A person with a healthy mental state is willing to take risks—sensible risks based on a realistic appraisal of the situation. He develops a certainty of what he can and cannot do, but also recognizes that absolute certainty is an impossibility.

Persons who refuse to take many risks are often persons who demand absolute certainty as shown by the outside situation or by a "feeling inside." They are unable to recognize that most situations present risks and uncertainties.

The authors said that the quest for certainty may be viewed as a person's attempt to cope with the anxiety that is always present when there is an unknown factor. The anxiety is a warning of possible danger. When the normal person is warned, he must evaluate

the nature of the danger in terms of what is really there and what his chances are of managing it.

However, the neurotic does not do this. He has an unreal impression of the situation. He deals with a situation on the basis of his own ideas—not on the basis of observation and careful weighing of the real chances of success and failure. He must be certain according to his own concepts and not according to reality.

"Whenever all doubts are denied and all differences obscured, we face pathologic consequences," the authors said in conclusion. "Realistic psychologic certainty is all a little uncertain; of this we may be certain."

Dr. Wolf is a member of the staff of the New York Medical College and Dr. Schwartz is on the staff of the Postgraduate Center for Psychotherapy, New York.

MECHANICAL BRAIN USE GROWING IN MEDICAL SCIENCES

Electronic computers have been used in industry and in warfare, but now they are moving into the biological and medical sciences.

Some of the dozens of uses they have in science were described in an article in the *Journal of the American Medical Association*.

Harry Weinrauch, M.D., and Albert W. Hetherington, Ph.D. of the U. S. Air Force's Air Research and Development Command said the mechanical brains have an almost limitless horizon for use in the medical and biological sciences.

In fact, it has even been suggested that a modified residency program for training in computer techniques be set up for qualified physicians.

The National Academy of Sciences and the National Research Council, in cooperation with the Air Force and the National Institutes of Health, have appointed a group to consider the application of computers to medicine and biology. The group will analyze the types of medical and biological prob-

lems in which computers have been employed and will recommend the types of situations in which they could profitably be used.

Computers have already been used in the lengthy statistical calculations required during mass standardizations of drugs and in the correlation of vast amounts of information in particular areas of public health. They were used in the evaluation of the effectiveness of the Salk vaccine, and in the studies linking tobacco to cancer and tobacco to cardiovascular disease.

A computer has already been devised which analyzes electroencephalograms (the wave patterns which represent the electrical potentials of the brain) and others could be used in the analysis of similar bioelectrical phenomena, such as the electrocardiogram (the pattern of the heart's electrical activity).

Computers can be built that simulate certain systems of the body. They can be used to study the activities and the possibilities of interrelations within these systems. These, according to the authors, offer great possibilities as research tools in understanding the functioning of the body, particularly the nervous system.

Specialized computers can be designed for specific tasks. For instance, one computer has been built which is incorporated in mechanical breathing devices. The calculator measures the voluntary breathing activity of the patient and correspondingly cuts down the action of the mechanical device.

Another category of computer application stems from its ability to store and recall quickly vast quantities of information. The authors suggested that computers be used to store the tremendous amount of data recorded on hospital charts and in medical journals. The "sheer mass of this material is so staggering that it defies efforts at retrieval." At present, the problem of building a machine big enough to store such material has not been solved, but it will be in the future, the authors think.

AMERICAN MEDICAL ASSOCIATION NOTES UNC SCHOOL OF MEDICINE HAS OVER HALF OF STATE'S MEDICAL STUDENTS

Of all North Carolinians entering medical schools in this state last year, over one half entered the University of North Carolina School of Medicine.

This and other data concerning medical school enrollment have just been released in the 58th annual report of the Council on Medical Education and Hospitals of the American Medical Association.

In September, 1957, for the 1957-58 school year, 160 residents of North Carolina began medical studies. Of these 129 entered the three medical schools in North Carolina.

Of these 129, a total of 66 or 51.2 per cent were freshmen at the UNC School of Medicine, which represents 41.3 per cent of the total state residents who entered all medical schools last year.

The 31 who began the study of medicine outside the state were distributed among 19 medical schools throughout the East and South.

CRASH DIETS FOR ATHLETES TERMED DANGEROUS

Crash diets and drying out by high school wrestlers and boxers trying to make a certain weight class are to be condemned, according to the American Medical Association's Committee on Injury in Sports.

In a statement in AMA News, the committee, along with the National Federation of State High School Athletic Associations, called for an unannounced "weighing in" at the beginning of the season. A boy should remain throughout the season in the class established for him at the "weighing in."

The groups also suggested an increased number of weight classes for athletes to minimize the advantage of making a certain class.

Many schools have interscholastic wrestling, but only two states (Idaho and Oregon) permit interscholastic

boxing in high school, the statement said.

Boys going on crash diets several times a year to make weight classes led to the statement.

"Under the strong motivation and appeal of sports, the diets and drying out may be carried to great extremes," the two groups said. "Such efforts are not consistent with the spirit of sport in that they tend to defeat regulations designed to insure fair and equitable competitions."

The crash diets, "sometimes approaching the starvation level," also are condemned from a health standpoint. "Disturbing the fluid balance of the body by drying out holds serious health hazards," the groups continued.

"These dangers are intensified in the immature organism of the growing adolescent athlete. They are also intensified by periodic weighings which encourage the athlete to resort to such practices at frequent intervals during the season," they said.

Under the present system in which crash diets are used, an athlete may be competing in a class below that in which he rightfully belongs, or a boy competing in his proper class may be pitted against much heavier boys who "made" the weight below their real class.

No plan of classification of athletes is infallible, the groups said, but they believe their recommendations "provide the best guarantee of equitable competition with a healthful experience for the participants."

NUTRITION PLAYS SMALL ROLE IN SKIN DISORDERS

Contrary to common belief, most common skin disorders are "not significantly connected" with dietary or nutritional allergies or deficiencies, according to an American Medical Association council report.

In fact, "dietary factors in acne vulgaris and psoriasis are generally overrated," Dr. Allan L. Lorincz, assistant professor of dermatology at the Uni-

versity of Chicago, said in the report prepared for the A.M.A. Council on Foods and Nutrition.

Malnutrition in the form of overeating, which leads to obesity, is "by far the most frequently encountered nutritional disturbance that causes or aggravates skin diseases," Dr. Lorincz said. Obesity precipitates or promotes a variety of disorders of skin on opposing surfaces of the body (such as the corner of the lips) because of the accumulation of heat and moisture between folds of the skin.

Because dissipation of body heat by conduction and radiation is impaired by a thick subcutaneous fat layer, obese persons become overheated easily and tend to sweat more profusely.

Excessive sweating has an adverse effect on normal skin and especially on most inflammatory skin diseases. It affects a number of lesser known conditions—stasis eczema, which occurs on the legs, skin ulcers, and striae distensae, which results from excessive stretching of the skin.

"In view of the high incidence of overeating and obesity in the United States . . . it is not surprising that measures aimed at controlling this nutritional problem are frequently necessary in the management of skin disorders," he said.

Specific dietary restrictions are valuable in treating some diseases, he added. Carbohydrate restrictions appear to help in chronic furunculosis (a condition associated with boils) and in hidradenitis (the inflammation of sweat glands). A low fat diet is helpful in treating xanthomatosis, in which there is a disturbance in fat metabolism.

However, dietary restrictions don't appear to have much effect on acne vulgaris. This is supported, Dr. Lorincz said "by the commonly observed failure of often self-imposed rigid dietary restrictions in unhappy teen-age acne sufferers to result in anything except frustration and undernourishment."

Even in genuine nutritional deficiency, skin manifestations are rarely so

distinctive as to allow them to be used as a means of diagnosis.

Vitamin A has been tried in the treatment of a vast array of skin disorders and has been found to be of "unquestionable" value in only the rare diseases pityriasis rubra pilaris and Darier's disease, he said. The B vitamins are of little use in modern American dermatology, although the use of nicotinic acid can be credited with the eradication of pellagra in this country.

"From a dermatological viewpoint, other nutritional factors have mostly only academic interest today; they find little practical application," Dr. Lorincz concluded.

PIGEON RELATED TO ITCHING SKIN DISORDER

The migration of pigeons to suburbs is creating still another hazard for the harassed suburbanite—the danger of being bitten by a pigeon parasite.

Large numbers of pigeons formerly living on office building have been driven from city business districts and are now nesting around homes in suburban areas.

When they moved, they carried with them *Dermanyssus gallinae*, commonly called the chicken mite. The mite lives on blood—usually that of fowl, but on occasion it will attack humans.

Fourteen cases of humans' being bitten by chicken mites carried by pigeons were reported in Archives of Dermatology, published by the American Medical Association.

Dr. Gerald A. DeOreo, Cleveland, noted that the medical literature has numerous reports of dermatitis resulting from *D. gallinae*, but the pigeon has seldom been recognized as a vector.

The commonest skin reaction from the mite's bite was a red spot resembling a mosquito bite. There was usually a clustering of three to six individual red spots. Itching developed a few moments to several hours after the bite had been inflicted.

Successful treatment depends on recognizing that the common pigeon may be the source of mites and eradicating the pigeons' nests.

A number of potent acaricides, chlorophenothane (DDT), chlordane, and lindane, are effective in the destruction of mites. An emulsion containing benzoate, benzocaine, and DDT is a useful repellent when applied to the skin, Dr. DeOreo said.

He concluded that the pigeon should be suspected as a possible cause of itching skin disorders of obscure origin in the spring and summer.

MEDICINE CABINET DANGERS LISTED

Is your medicine cabinet typical of those found in most American homes—a catchall for potions, ointments, pills, salves, sprays, and a countless variety of other medications and sundries?

If so, this may be a potential hazard to you and, more particularly, your children.

Writing in a monthly column in the American Medical Association's *Today's Health*, Dr. Donald A. Dukelow said this assortment of drugs and chemicals can be dangerous.

The doctor added, "In the rush of an emergency or when sick or sleepy, it is possible to be poisoned or burned by chemicals picked up by mistake."

He advised that "A medicine cabinet—or shelf or drawer—should be used for medicine only. Cosmetics, toothpaste, and shaving materials should be available for easy use without having to hunt for them among pill boxes and bottles."

Other suggestions passed along by Dr. Dukelow include: never take medicine in the dark; read carefully the directions on the label; take the dose recommended by your physician; keep medicine out of reach of children; close the container at once; never switch tops or covers on pill or powder boxes, and never pour medicine back into the bottle.

A.M.A. UNVEILS NEW AGING PROGRAM

A promise of more useful and productive lives for the aging population has been made by the American Medical Association's Committee on Aging.

This assurance was given to a medical planning conference in Chicago as part of a twofold program of individual and community action to achieve these ends.

In summarizing three years of concentrated activity in the field of aging the committee placed great stress on individual action.

"The major scourges of aging man are largely the result of faulty diet, flabby bodies from poor hygiene, excessive fatigue, and aimless living," the committee said.

A plan for "positive health" was suggested by Dr. Edward L. Bortz, Philadelphia, a member of the A.M.A. committee, who cited the 10 basic needs for older persons:

- A balanced diet including more protein, vitamins, and fluids; less fats and calories.

- Regular elimination of waste products.

- Adequate rest of both mind and body.

- Pursuit of interesting and specific recreational activities.

- A sense of humor, which is the best antidote for tension.

- Avoidance of excessive emotional tension which leads to personal ineffectiveness.

- Mutual loyalty of friends and family.

- Pride in a job.

- Participation in community affairs.

- Continued expansion of knowledge, wisdom, and experience, which add to maturity.

Dr. Bortz termed these 10 points a "do-it-yourself" program which should allow the average healthy man and woman to live 100 years with much less suffering and deterioration than is now occurring.

He said the two major elements in prolonging life are the preservation of energy and a high degree of motiva-

tion. The first is maintained through proper diet, exercise, and rest, while the second comes from purposeful, useful activity.

"Useful activity," the doctor said, "provides high and specific motivation—a justification for living these added years. When the incentive, the zest for living, is lost, senility is inevitable."

His thoughts were echoed by Dr. Theodore G. Klumpp, president, Winthrop Laboratories, New York, who said, "Based on loss of motivation and interest and to a large extent because of the fear psychosis against exercise and exertion, our middle aged and older people reduce their physical activities with damaging if not disastrous results."

"I believe that we must do everything we can, as we grow older, to resist the inclination to slow down the tempo of our lives. I am convinced that if you will just sit and wait for death to come along, you will not have long to wait."

The role of the community is helping the aging was outlined by Dr. Frederick C. Swartz, Lansing, Mich., committee chairman, in a six-part program. Designed to supplement individual health plans, the program calls for:

- Stimulation of a realistic attitude toward aging by all people.

- Extension of effective methods of financing health care for the aged.

- Expansion of skilled-personnel training programs and improvement of medical and related facilities for older people.

- Promoting of health maintenance programs and wider use of restorative and rehabilitative services.

- Amplification of medical and socioeconomic research in problems of aging.

- Cooperation in community programs for senior citizens.

Dr. Swartz said, "It is the duty and responsibility of the state and county medical societies to study the situation of the aging population in their own states."

"The panorama is rapidly changing and if the state and national committees on aging work hand in hand, we may find an answer for many situ-

ations before they become problems."

The American Medical Association hopes these programs will provide a foundation upon which a "new world of aging," reaffirming the worth and responsibilities of individual and family, can be built.

COMMON HOUSE PLANT FOUND TO CAUSE DERMATITIS

Some species of the popular house plant philodendron have been found to cause a skin eruption similar to that produced by poison oak.

Writing in Archives of Dermatology, published by the American Medical Association, two Los Angeles doctors said contact with philodendron leaves produces red blotches and streaks of tiny blisters. They usually occur on the hands and forearms, although they may occur other places.

The number of cases of dermatitis resulting from contact with philodendron is probably greater than generally thought, they said, especially since philodendrons are increasing in popularity as house plants.

The doctors have seen at least 12 cases of philodendron-caused dermatitis in the last few years. The medical literature mentions other cases.

There are approximately 100 species of the genus. The most popular as a house plant is *Philodendron cordatum*, a vine with small, heart-shaped, glossy leaves. Another is *P. selloum*, which has large divided leaves and grows in mound. The genus belongs to a family different from that to which the poison oak and poison ivy plants belong, although the skin eruptions produced by the plant look alike.

The skin eruptions generally clear after the exposure to the plants is ended.

Authors of the article are Drs. Samuel Ayres Jr., and Samuel Ayres III.

MINOR DECREASES IN WORK LOAD MAY CAUSE OBESITY

Using a standard typewriter instead of an electric typewriter could be the difference between staying thin and gaining weight.

So could the use of a standard steering wheel instead of power steering, walking instead of driving, playing golf instead of gardening, just standing up instead of sitting down, and many other "seemingly insignificant differences" in daily habits.

The difference lies in the amount of energy needed for each activity, according to an article in the Journal of the American Medical Association.

The basic cause of obesity is an intake of calories in excess of the needs of the body. Small increases in the amount of food eaten and small decreases in the work output of the body—as when a person switches to an electric typewriter—can over a period of time be responsible for overweight, the authors said.

Dr. Herbert Pollack, New York, and C. Frank Consolazio, A. B., and Gerhard J. Isaac, A.B., Denver, prepared the article for the A.M.A. Council on Foods and Nutrition.

They pointed out that each person has a "basal caloric requirement"—the number of calories needed to just stay alive—based on his age and the surface area of his body as measured in square meters. In addition, the caloric expenditure (or cost) per square meter of body surface for any activity can be figured.

It's a rather complicated procedure, but it has been determined, for instance, that there is a difference of almost nine calories an hour for each square meter of body surface between sitting quietly and standing quietly.

The difference in the caloric expenditure per square meter of body surface between lying down, sitting, standing quietly, and standing while moving in a limited area "do not appear large, but when multiplied by the total minutes during the day, they loom large," the authors said.

If an individual fails to reduce his caloric intake as he ages and decreases his activity, he will gain weight.

For instance, this could happen to a typist who switches typewriters—over a long period of time, of course.

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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912
Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

March, 1959

No. 3

In This Issue:

**STATE BOARD OF HEALTH
MAKES PLEA FOR MORE
ADEQUATE PROVISION FOR
STATE'S PUBLIC HEALTH NEEDS**

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List of free health literature will be supplied by local Health Departments or on written request.

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North Carolina State Board of Health Speaks

The accompanying statement was issued by the State Board of Health, consisting of nine members, of which five are appointed by the Governor and four are elected by the Medical Society of the State of North Carolina, at its regular quarterly meeting March 3.

After a careful study of the 1959-61 public health budget recommended by the Advisory Budget Commission now before the General Assembly, we feel it our responsibility as members of the State Board of Health of North Carolina to inform the people as to why we feel it is inadequate to meet the increasing health needs of our people.

The budget for this biennium was presented in two parts—"A" and "B". The "A" Budget is limited to the

continuation of minimum existing services, and an increase of 1.1% over appropriations for the 1957-59 biennium was recommended. Because it was impossible to express our increased public health responsibilities in the "A" Budget, it was necessary to place many of them in the "B" Budget. Among these are health needs of a rapidly increasing number of school children and general and aging population, as well as an increase in tour-

ists, cafes, motels, dairies, new industries, radiation hazards, air and water pollution potentials and numerous other health problems associated with the atomic and space age. It was, of course, a great disappointment to the dedicated public health workers throughout the State when they learned the entire "B" Budget for public health expansion and improvement of health services by the State and local departments had been completely rejected by the Advisory Budget Commission and that a decrease of \$27,950 in the State support share in county health services was recommended.

We believe the people of North Carolina will be interested in knowing what was requested in the "B" Budget. A sum of \$870,915 (or 77.2% of the "B" Budget) was requested for State aid to local county health programs. This is broken down further to payment to counties, \$663,000; training, \$53,875; mental health centers, \$100,000; and Local Health Administration, \$54,040. For lack of funds, some of our county health programs are weaker than others. We know from experience that the best public health program is one owned and operated by the people of the counties and manned by well trained, capable personnel. In this State, whereas the local health departments were set up on a 50-50-basis, now the counties are carrying 77% of the cost of this life-saving program, and the State 17%. Our requested increase of \$663,000 toward a fairer State sharing in local services amounts to only 14.7 cents per person each year or a total, for the State, of 46.1 cents, whereas the counties are already providing 138.4 cents. When the State shirks its fair share of support for preventive health services while not raising State taxes, the burden is merely shifted to the small home and business and other property owners in each county. Every family struggling to own a home, farm or business property should be aware of this fact. In order to "hold the line" against death, injury and disease, including mental illness, with competently train-

ed personnel, additional State funds for the counties are urgently needed. We are sure that most North Carolinians realize that one of the vital needs in our State today is the continued attraction of new industries and tourists. One of the best assurances that the flow of industry and tourists will continue is through the protection against preventable and unnecessary illness, injury and death made possible most economically through adequately staffed local health departments. Disease and death cannot be limited to county lines. They are problems of the State as a whole, and the counties look to the State for a fair share of support in the joint responsibility to protect the health of the people.

The second part of the "B" Budget requested and denied is also closely related to strengthening county programs through special State health services. Many of these services make available to the various counties different skills, professions and disciplines which are too expensive for each county to employ. In order to make these public health services available to all the counties, the State Board of Health requested the sum of \$256,889. This would assure continued and expanded services to the counties in home and farm accident prevention, nutrition, laboratory services, public health library, film library, occupational health, mosquito control, food sanitation, tuberculosis and venereal disease control, veterinary public health and vital statistics. Many of these services are, in our opinion, "A" Budget functions, inasmuch as they embrace the responsibility of dealing with existing health conditions. We were required, however, to submit them in our "B" Budget.

Regardless of where they belong in the budget, we are sure of one thing—they are needed to strengthen the total public health program of the State. For example, how much is it worth to you and your children: to avoid being the victim of a food poisoning outbreak because the restaurant was in-

spected properly; to be assured that your child will not likely contract polio or some other communicable disease because immunization and other control measures were adequate; to avoid the necessity of a painful series of antirabic treatments because the biting dog was properly vaccinated against rabies and the stray dog eliminated by the dog warden; to be assured that your family physician has available adequate State Laboratory diagnostic service for cancer and the newly discovered virus diseases; to know that the occupational hazards (perhaps in your job) in use of new and complex chemicals in industries are being constantly studied, evaluated and eliminated where possible; to know that facilities are available in the community to find the tuberculosis cases early; to have the advantages of an extended dental health program in the schools; to provide for nutritionally better diets in our schools and institutions; to prevent accidental poisoning, drowning or burning (possibly your child); to have at your finger tips accurately recorded vital public health statistical data needed so often in our modern living.

How much are these things, represented in the request of \$256,889, worth to you as a citizen of North Carolina? We are sure you will agree that no price tag can be placed on human health, but vigorous activity and service in all of the fields of public health previously mentioned can be available

to you for an increase of approximately six cents per person per year.

In a 1957 survey of forty-eight states by the United States Public Health Service, thirty-nine made greater percentage increase in appropriations for public health between 1950 and 1957 than North Carolina, which had 25.6%. South Carolina, Virginia, Florida, Georgia, Kentucky and Mississippi ranged between 39.9% and 174.9. In 1958 a similar survey showed per capita State appropriations for public health of: Georgia \$1.73, Florida \$1.49, Virginia \$1.27, Kentucky \$0.98, Tennessee \$0.89, South Carolina \$0.85, Mississippi \$0.81, and North Carolina \$0.70.

North Carolina's greatest resource is the health of her people. The health program for the State is at a crucial stage in shifting emphasis from control of communicable disease to control of degenerative chronic diseases, accidental injuries and mental-emotional disorders. Shall the State go backwards in its provision for preventive health services or shall we move forward with a dynamic, vitalized health program keeping pace with other progressive programs of the State and the tradition for sound health work developed in the past?

We are making this appeal to the people of North Carolina because we believe that they not only desire better public health services but are also willing to pay for progress on all constructive fronts.

Notes and Comment

MISS MAE REYNOLDS

On November 15, 1958, Miss Mae Reynolds retired. She went to South Georgia for a well earned rest and has just recently returned to Raleigh. She has so many friends throughout the State who would wish to write her or call upon her that we have deliberately delayed any statement in **The Bulletin** concerning her retirement. Miss Reynolds' present address

is 114 South Person Street, Raleigh, North Carolina.

For more than 41 years Miss Reynolds was a faithful and loyal member of the staff of the State Board of Health. It was her duty to handle the money which has been entrusted to the North Carolina State Board of Health; to see that it was properly allocated and expended economically. When she started to work for the

North Carolina State Board of Health its annual appropriation was \$40,500. In recent years funds from all sources—State, Federal and Foundation—have been in excess of \$5,000,000. Whether she had much or little, she scrutinized all expenditures most carefully and endeavored to see that more than a dollar's worth of service was rendered for each dollar expended. Miss Reynolds has always been enthusiastic about the public health program in North Carolina. Her interest extended into every county of the State. She was familiar with each and every health program no matter where it was being carried out. She knew that it was difficult to secure money, and she wanted every health dollar to do an honest day's work.

Dr. Watson S. Rankin, North Carolina's first whole-time State Health Officer, began to serve in that capacity in 1909 and continued until 1923. He made such outstanding contributions to the public health program for the State that the North Carolina Public Health Association in 1955 established the Watson S. Rankin Award to be given to "an individual in recognition of outstanding contributions to public health in North Carolina over a period of several years." The first Rankin Award was given to Miss Reynolds and was presented to her by Dr. Rankin. The following is quoted from the citation:

"During her thirty-eight years of service as a public health worker, Miss Mae Reynolds, Budget Officer for the North Carolina Board of Health, has done more than administer a financial budget which, during her tenure, has grown from \$40,500 to \$5,000,000 a year. She has put into her work more than mathematical knowledge; she has given of herself far beyond the call of duty.

"Miss Mae, as she is known to her host of friends, has served under every full-time State Health Officer North Carolina has had. She has participated in every major program which the North Carolina State Board of Health has undertaken, during and since the

days of Dr. Watson S. Rankin.

"Miss Mae has found time, in an active life of service to the State, to contribute substantially to civic, religious, and cultural activities.

"In her public health career, she has been in touch with every phase of public health activity. She has been an active participant in such organizations as the North Carolina Public Health Association and the North Carolina Academy of Public Health. In 1954 she was Chairman of the Finance Committee of the Southern Branch, American Public Health Association.

"While Miss Mae's activities have been varied and her participation in public health matters wide, her forte has been thorough knowledge of the policies and practices necessary to the proficient financial administration of public health, at both the State and local levels. Miss Mae leaves one with the feeling of having had, not only a satisfactory business conference, but also a visit with an understanding friend. Her fiscal philosophy has always been: 'Let's see if we can find a way to do it.' She is the health workers' ideal of what a fiscal officer should be—an expeditor, not a negator. Her motto might well be, 'It can be done.' Much of the health program of North Carolina is due to her daily exercise of this philosophy.

"For outstanding service over thirty-eight years, the North Carolina Public Health Association is happy to name Miss Mae Reynolds the first recipient of the W. S. Rankin Award."

At the November, 1958, Meeting of the North Carolina Academy of Public Health, Miss Reynolds was presented with a check for \$300.00, which had been contributed by public health workers throughout the State. It was suggested by these workers that Miss Reynolds use this money toward the purchase of a piano or an organ—that she might pursue one of the hobbies of her youth—music. Most of us had never known of her interest in music but as a young woman she was an accomplished artist. She gave up the

joys of this avocation that she might better advance the cause of public health.

"WHEN PEOPLE SAY 'NO' TO HEALTH SERVICES"

"When People Say 'No' to Health Services" is the title of a signed editorial by Dr. Herman E. Hilleboe, Commissioner of Health, New York State Health Department, in their Health News. From this editorial it would seem that the State of New York is offering its citizens more health services than are being used. The citizens of North Carolina are demanding more health services than appropriating bodies have provided. However, in both states we have our common problems. The following quotation is just as true in North Carolina as it is in New York.

"There was a time when much of public health work required only the passive support of citizens and civic leaders. That was an age when environmental sanitation improvements could bring automatic benefits to everyone in a community. Not so today. The advent of chronic, degenerative diseases as major health concerns has ushered in an era that requires more than ever before the personal and active cooperation of many persons."

Another paragraph should be of interest to our readers:

"One polio immunization appeal aims a special reminder at persons 20 to 40 years of age by ending with the thought: 'Protect the whole family.' There is an honest and compelling inference in this reminder. It tells mothers and fathers that the well-being of their children will be in jeopardy if even one parent is stricken with paralytic polio and cannot discharge parental responsibilities."

TWO FELLOWSHIPS OFFERED IN AUDIOLOGY AND SPEECH

Opening of competition March 6 for two fellowships in audiology and speech at Northwestern University is announced by the American Hearing Society, its member agency, the St.

Paul Hearing Society, and the university. Winners of the awards, known as the Reine Humbird Myers Fellowships, will receive \$3,000 a year for two years while participating in a graduate program in preparation for work in local hearing societies.

The fellowships were established in 1957 through a bequest from the Myers Foundation of St. Paul, Minnesota.

Further information and applications may be obtained from Crayton Walker, executive director, American Hearing Society, 919 18th St., N. W., Washington 6, D. C. Closing date for returning completed applications to Mr. Walker is April 6.

FALL PREVENTION RULES LISTED FOR AGED

Falling is one of the commonest but most unnecessary hazards faced by older persons.

Hundreds of thousands of old persons are injured every year from falls, and more persons die after 65 from falls and their complications than from auto accident injuries, according to an article in Today's Health, published by the American Medical Association.

The article listed some of the major causes of falls and the ways in which they can be prevented.

One of the major factors in falls is that as persons age their balance-recovery machinery fails. If a person starts to "teeter," certain muscles in his body instantly go into action to keep him on his feet. But in the older years, these muscles get lazy and don't function as rapidly.

Some of the most common causes of falls and their preventions are:

—Stairways. When an older person goes up or down stairs, he should not take one step with each foot, but should put both feet on a step before proceeding to the next one.

—Insufficient light. Older persons don't see as well as they once did. Stairways especially should be lighted. A night light in the bathroom is recommended. In addition, a person should keep a flashlight by his bed to use if he gets up in the night.

—Bedrooms. The most dangerous room in the house is not the kitchen, but the bedroom. This is where most elderly persons fall, often because they get up too quickly and become dizzy. When a person gets up, he should sit on the edge of the bed for a few minutes.

—Bifocal glasses. These are especially dangerous when a person goes downstairs, since he may look through the lower lens and the steps become blurred.

—Taking a step backwards. If a person feels uncertain about his footing, he should never step backwards unless he can see where he is going.

—Not lifting feet high enough. As a person ages, his muscles and ligaments are less lively and he doesn't lift his feet as high, with the result that he trips over all sorts of small things—rug corners, toys, thresholds and door-mats.

—Ice. When the sidewalks are slick, a person should stay indoors. If he must walk on ice, he should use a flat-footed shuffle, keeping his weight forward.

—Bathrooms. A rubber suction mat in the tub is a must for tub or shower. In addition, grab-bars installed on the wall in the right place by the tub or shower can prevent falls.

—Climbing on chairs. Some older persons won't admit they're old and insist on climbing on chairs and tables. These are dangerous.

In addition, there are dozens of other things that contribute to falls, including escalators, poor housekeeping, high bus steps, shiny, slippery floors, and throw rugs that slide.

The article urged all persons to learn to walk properly and to arrange their environment so they won't fall. In conclusion, it listed three rules for helping people to stay on their feet in old age: start studying "senior-age safety" early; keep your weight down, and keep in good physical condition.

The article was written by Edward D. Fales, Jr., Lime Rock Station, Conn.

JOB TRANSFER IS ONLY TREATMENT FOR PRINTER'S DERMATITIS

Job transfer is at present about the only treatment available for printers suffering from "chromate dermatitis."

Skin disease is an important occupational hazard of lithographers, affecting from 5 to 10 per cent of those employed in the reproduction of colored photographs by high-speed printing presses.

Such skin disease, called "chromate dermatitis" because chromic acid derivatives are believed to be the major factor in the disease, is difficult to prevent and control, three Northwestern University Medical Center physicians said in the *Journal of the American Medical Association*.

In a study of 100 men, the doctors found that many chemicals, not just chromic acid derivatives, cause dermatitis. It takes about five years for a pressman, who uses many chemicals, to develop dermatitis, while it takes 15 for a platemaker, who uses only a few chemicals.

Protection from rubber gloves or creams has been found to be unsuccessful, mainly because their use makes the handling of materials cumbersome.

However, the doctors believe that the dermatitis could be controlled to some extent by safety engineering procedures which would minimize contact with known hazardous chemical agents; by research toward the development of materials to replace those with known undesirable effects, and by further research into the possibility of repelling, neutralizing, or separating chromate when it comes in contact with the skin.

But until such measures succeed, transfer to another job is about the only way of helping printers who suffer from lithographer's dermatitis, the doctor said.

The authors of the article are Drs. Harlan M. Levin and Matthew J. Brunner, Delavan, Wis., and Dr. Herbert Rattner, Chicago.

PERSONS NEED TO UNDERSTAND VALUES OF AUTOPSY

Autopsy, "the operation no one talks about", should be talked about—long before there is any need for it.

Every family should discuss the question of autopsy and decide how it feels about the operation, thus simplifying the decision when a family member dies.

This recommendation was made in an article in *Today's Health*, published by the American Medical Association.

Autopsy can, the article said, "bring peace of mind to the patient's family and the gift of life itself to future generations."

Yet many persons object to post-mortem examinations. Their objections are often based on misconceptions, the article said.

One is that the body will be disfigured. However, nothing in the process alters the countenance of the deceased. Unless the case is very unusual, only a single midline incision is made in the torso, and the vital organs removed for further study. The brain is examined by an opening across the scalp, afterward hidden by the hair. The doctor uses the same skill in performing an autopsy that he uses in the operating room.

There is no fee for performing an autopsy. It can be performed in less than two hours, and will not, as many persons think, delay the funeral.

There is little fact to substantiate the statement that autopsy is against a person's religion. The article quoted Protestant and Roman Catholic leaders as saying there is no objection to autopsy in their churches. While Orthodox Judaism forbids autopsy, Reform Judaism does not.

Another objection is "The patient has suffered too much already." This attitude, the article said, expresses the feeling that the patient still exists and is capable of feeling pain.

Three reasons why post-mortem examinations are important were cited. They are:

—Some diagnoses cannot be made by observation. Tumors of the brain,

for example, may spread to the lung, but the location of the primary lesion can't be demonstrated without autopsy.

—For research purposes. Correct diagnosis still remains the most difficult and fundamental part of a doctor's job. Whatever his field of specialization, there is perpetual interest in research, and autopsy is one of the most valuable aids.

—To find an explanation for symptoms (often coincidental) which do not fit in with the patient's primary disease.

Through autopsy, a doctor may learn how to prevent certain diseases from recurring within a family, thus prolonging life expectancy. Autopsy may also explain why a person died and thus relieve a family member's mind. And finally it may provide information of value in the advancement of general medical knowledge.

JOURNAL EDITORIAL ADVISES ON WORK FOR HEART PATIENTS

Common sense and observation are the basis on which a doctor can decide whether a heart attack victim should return to work.

In spite of all the material written and all the advice given, there is no way in which the doctor can tell if his patient should return to work except through his own "common sense and clinical judgment," according to a guest editorial in the *Journal of the American Medical Association*.

Dr. Leonard J. Goldwater, Columbia University, New York, said interest in occupational activities for cardiac patients seems to be at an all-time high. Most studies indicate that most cardiac patients can safely return to work. Only a few need changes in occupation.

Before the doctor can decide about his individual patient, he must take a number of features into consideration. They include, according to Dr. Goldwater, the patient's age, and previous occupational activity, the cause of his heart disease, the nature of the heart condition, the need for and response to treatment.

"Knowledge of the physical and

emotional stress of the patient's job obviously constitutes an indispensable part of the evaluation," he said. "Transportation problems and extra-occupational activities cannot be overlooked."

CHRONIC BRUCELLOSIS CALLED EMOTIONAL ILLNESS

"Chronic brucellosis" consists essentially of an emotional illness, a group of Johns Hopkins University researchers believe.

Brucellosis, also called Malta or undulant fever, is an infection characterized by tiredness, fever and body aches. Caused by *Brucella* organisms, it is usually acquired from cattle, hogs, sheep or goats.

The Johns Hopkins men, writing in Archives of Internal Medicine, published by the American Medical Association, said brucellosis is usually a self-limiting disease. Most patients are well and symptom-free within a year after the acute attack, although brucellosis is commonly considered to be a chronic disease that may persist for years.

When this happens, the Johns Hopkins men believe, the condition results from emotional factors rather than physiological ones.

Of 24 patients who had had brucellosis four to six years before the study, eight were fully recovered; six had had "chronic brucellosis" for a while but were recovered, and 10 still had "chronic brucellosis."

Careful physical and laboratory examination showed that the patients with "chronic brucellosis" could not be distinguished from those who had recovered uneventfully after the acute attack. The two groups were identical with regard to severity, course, and treatment of the acute disease. No evidence of persistent infection with the *Brucella* organism could be found in the chronic patients.

However, the chronic patients continued to show physical symptoms even though there was no physiological rea-

son for them. Their symptoms were nonspecific—fatigue, headache, "nervousness" and depression—much like those appearing in neurotic persons.

Psychological tests and psychiatric interviews revealed that the chronic patients had considerably more emotional disturbance than did the recovered patients. The majority of the chronic patients appeared depressed and anxious.

Most of the chronic patients had had emotional difficulties in childhood, and had been experiencing significant stresses of some sort during the period they were acutely ill. The recovered patients had not undergone such stresses, the doctors said.

They concluded that emotional disturbance was "significantly more prevalent" in the chronic patients and that their "disease" was primarily emotional.

The doctors explained that symptomatic recovery from acute brucellosis "depends critically on the emotional state of the person at the time of acute infection or in the convalescent period. In the wake of an acute *Brucella* infection there is almost always a period of lassitude or fatigability. In the depressed patient these otherwise transient symptoms merge imperceptibly with depressive fatigue or lassitude and thus appear to be perpetuated.

"The manifestations of the patient's emotional disturbance thus become included by the patient, and often by his physician, in the syndrome of 'chronic brucellosis.'"

The reputation of brucellosis as a chronic disease supports the patient's tendency to retain his symptoms for long periods of time. In addition, "chronic brucellosis" offers a readily available explanation for any discomfort that occurs.

The authors are John B. Imboden, M.D., Arthur Canter, Ph.D., Leighton E. Cluff, M.D., and Robert W. Trever, M.D., of the departments of psychiatry and medicine at Johns Hopkins University School of Medicine and the Johns Hopkins Hospital, Baltimore.

CHANGE IN MOLES SHOULD NOT BE IGNORED

Moles, "the commonest of all tumors," seldom cause trouble, but one kind needs careful watching because it may produce "the most malignant of all cancer."

This type is junction nevus. It is described in *Today's Health*, published by the American Medical Association.

Some moles may contain certain cells, called "nevus cells" which may predispose to the development of cancer. A mole with these cells is called "junction" because it rises at the junction of the first and second layers of the skin.

Common moles practically never become malignant, the article said. Moles that turn cancerous almost invariably get their start in junction nevi.

Most junction nevi never turn cancerous either, but they may occasionally do so. If there are changes in a mole—deepening in color, increase in size, or noticeably heightened sensitivity—a doctor should be consulted. If he finds the mole to be a junction nevus, then he should remove it—before it has a chance to become malignant.

"The odds are very much against every human being, even the most freckled, having a junction nevus," the article said. "Hence the anxious examination of one's moles is no more to be encouraged than the hourly taking of one's pulse if all else is well.

"But the grave risk of ignoring any changes in the elevation, shape or color of a mole is not to be encouraged either. Let a physician and his laboratory decide. It might be a junction nevus."

The article was written by James C. G. Conniff, Upper Montclair, N. J.

SUDDEN GRAYING MAY BE FORM OF SKIN DISEASE

History and legend are full of stories of people who grayed suddenly after severe emotional stress. Medical reports tell of graying after acute organic illness.

Among the famous who reportedly

grayed suddenly are Queen Marie Antoinette, after hearing her death sentence, and Ludwig the Bavarian, after having condemned his wife to death.

Rapid whitening has been reported to occur in mental patients, in paralyzed patients, and in persons with eye ailments.

Just why such sudden whitening occurs is not known, but a Brooklyn, N. Y., dermatologist has come up with a possible explanation for at least some of the cases.

Dr. Alfred J. Ephraim, writing in *Archives of Dermatology*, published by the American Medical Association, thinks some of the cases may be a form of vitiligo, a skin disease in which the skin loses its pigment.

He reported the case of a man whose hair turned white within six weeks after an accident. At first, the change was attributed to head injury suffered in the accident. However, 17 months later, the doctor again saw his patient and realized that he was suffering from vitiligo. The doctor examined pictures taken immediately after the man's hair changed color and found that his skin even then showed signs of vitiligo.

Dr. Ephraim is convinced that his case resulted from vitiligo and he believes that some other reported cases may also belong in the group of vitiligos.

"It seems physiologically difficult to understand how the hair, which, once formed, is a structure without nerves or blood supply, can throughout its length undergo rapid physicochemical changes directly due to emotional influence," Dr. Ephraim said.

However, the medical literature is full of such reports. While "close scrutiny of the reports reduces the actual number of reasonably reliable cases," he said, there are enough to show that sudden or rapid whitening really does occur.

Some resulted from excitement, fright or mental stress, while others were related to acute organic illness. The latter occurred mainly in persons under treatment for neurological or

mental disorders. Sudden whitening has occurred in persons following railway accidents, family catastrophes, and war. Oddly enough, there is no medical report of sudden graying following mining disasters or "the horrible experience of World War II," the author said.

Exactly why hair suddenly turns white is not known. In fact, it is not even definitely known whether the usual graying process starts at the root or at the tip of the hair or whether the pigmented hair falls out and is replaced by a white one. Dr. Ephraim questioned hair dressers who said they believe that pigmented hair turns white at once. They never observed short white new growth but only long white hairs during the period of graying.

Because it takes an average of five months for a plucked hair to regenerate and to grow to a length of four-fifths of an inch, it is impossible for a pigmented hair to fall out and be replaced overnight by a white one. The slow growth also negates the explanation that persons forget to dye their hair.

One of the most accepted theories of what happens in sudden graying is that air bubbles enter the hair while the pigment is fully retained. These air bubbles make the hair appear white through light reflection. Another theory is that some subtle damage is done to the cells that contain the pigment.

Dr. Ephraim also pointed out that it is known that the pigment-producing cells originate from the same area as the central nervous system cells. "This neurogenic origin may perhaps lead to an explanation of the phenomenon of rapid pigment loss."

Until then, the fact remains that sudden whitening does occur in relation to emotional and organic upheaval. Dr. Ephraim does not know why, but he does believe, on the basis of his one case, that some occurrences may be related to the development of vitiligo.

He is a member of the department

of dermatology and syphilology of the New York University Post-Graduate Medical School.

DIABETIC BLINDNESS RELATED TO TYPE, LENGTH OF ILLNESS

Blindness as a complication of long-term diabetes may be prevented by early detection and adequate control of the disease, a new study has suggested.

The study, conducted at Joslin Clinic, Boston diabetes detection center, lends support to the "growing conviction" that complications of long-term diabetes are related to the degree of control maintained over the years.

Writing in the *Journal of the American Medical Association*, Drs. Howard F. Root, Stanley Mirsky and Jorn Ditzel said the prevalence of blindness due to diabetes has been rising as more persons survive diabetes for long periods.

Diabetes is a disease in which the body's utilization of sugar is impaired. The usual treatment involves diet control and injections of insulin, a substance necessary for the breakdown of sugar in the body.

Diabetes appears to seriously disturb the body's whole metabolism (the physical and chemical changes in the body). This disturbance apparently plays a role in the development of a degenerative eye condition known as proliferative retinopathy in which there are changes in the retina and blood vessels. It may lead to blindness.

The doctors studied the records of 847 persons who developed proliferative retinopathy during the last 30 years. They found that none of the patients had good control of diabetes through diet or insulin therapy from the onset of the disease.

All had severe diabetes of long duration, usually beginning at a relatively early age.

However, many other patients are known to have survived diabetes with onset in childhood for periods of 20 to 30 years without any evidence of retinopathy when their diabetic treatment had been adequate.

The authors feel that proliferative retinopathy can be prevented and postponed by early diagnosis and continuous control. They said physicians are "obligated to plan treatment and supervise management in such a way as to provide the best control attainable at the present time . . ."

The study showed:

—That the 847 patients had diabetes for an average of 17 years before developing proliferative retinopathy.

—That nearly half of them had diabetes before they were 20 years old and the rest before the age of 40. Most of them had difficulty in controlling the disease.

—That among the last 206 consecutive cases there was no case of blindness in a patient under 20 years of age, but that 25 per cent of those over 20 were blind.

In summary the doctors said that three factors appeared to influence the development of retinopathy in diabetics. They are long duration of the ailment; the inability to maintain adequate control over the disease, and most importantly, the early age of onset. Generally when diabetes begins early, it is severe, whereas diabetes developing late in life is generally mild. Thus early diagnosis and continuous control of diabetes is of "maximum importance in postponing and preventing" proliferative retinopathy.

SHOULDER EXERCISE NEEDED IN FOREARM FRACTURES

Even though a person has his elbow, forearm or hand in a cast, he must raise the arm above his head several times a day. Otherwise, he may end up with a stiff and painful shoulder.

Most patients with fractures of the forearm or hand are afraid to do "what may appear to them to be unnecessary movements," two Chicago orthopedist said in the *Journal of the American Medical Association*.

Lack of exercise, even for as brief a period as two or three weeks, may cause a shoulder to become stiff. Drs. Robert G. Thompson and Edward L. Compere said doctors must repeatedly tell their patients to raise their injured arms above their heads several times a day.

This advice applies to any patient with a fracture involving the fingers, hands, forearms or elbows, and who is wearing a short or long arm cast, with or without a sling.

If the patient raises the arm above his head several times each day, "much future suffering and disability can be prevented."

In addition, the doctors said patients should be shown how to move their hands when they have injuries of the elbow and forearm. It is not enough, they said, to simply wiggle the fingers; a complete fist should be made.

PLANS ANNOUNCED FOR SUMMER COURSES IN PUBLIC NURSING

Plans have been announced by the University of North Carolina School of Public Health for its annual summer program of special fields in public health nursing.

Each year these four one-week long courses attract students from all states of the Southeast. This year the courses will begin on July 5 and continue through August 1. The courses are conducted by the Department of Public Health Nursing of the School of Public Health.

The courses are presented for public health nurses, institutional nurses, private duty nurses, health educators, personnel of voluntary agencies and community workers.

The tuition fee for these courses is \$10 per week. Additional information may be had by writing the UNC School of Public Health, Chapel Hill.

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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912
Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

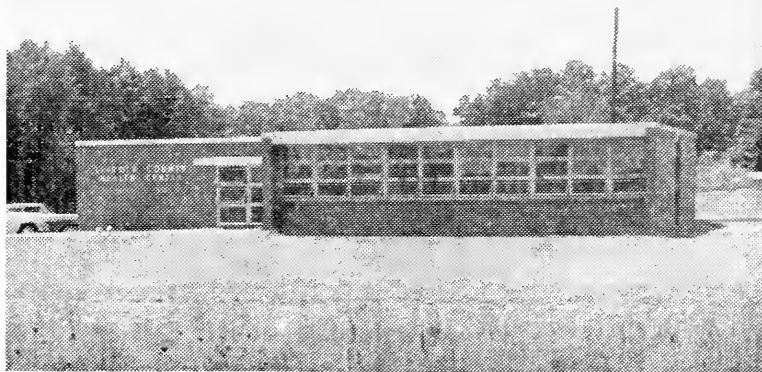
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Public Health—A State Responsibility

By J. W. R. Norton, M.D.,*

State Health Director

First, may I invite each of you to visit and become familiar with the workers and work of your State and local health departments. Emphasis is on health education and there are services for everyone.

You have already been supplied with a copy of our detailed justification statement for our budget request and a Statement by the State Board of Health made at its last meeting on March 3, 1959. Also you have an organization chart, a sheet showing State-Federal and Local Appropriations, a

summary of the Advisory Budget Commission recommendations, what each county could expect from the additional aid requested for local health and detailed data on each local health department.

The increases requested do not represent "empire building" or a desire for more extravagant methods of doing the same job. I quote from the March 3 Statement by the State Board of Health regarding items requested:

"Regardless of where they belong in the budget, we are sure of one thing—they are needed to strengthen the total public health program of the State. For

*Statement before Joint Appropriations Committees March 17, 1959

example, how much is it worth to you and your children: to avoid being the victim of a food poisoning outbreak because the restaurant was inspected properly; to be assured that your child will not likely contract polio or some other communicable disease because immunization and other control measures were adequate; to avoid the necessity of a painful series of antirabic treatments because the biting dog was properly vaccinated against rabies and the stray dog eliminated by the dog warden; to be assured that your family physician has available **adequate State Laboratory diagnostic service** for cancer and the newly discovered virus diseases; to know that the occupational hazards (perhaps in your job) in use of new and complex chemicals in industries are being constantly studied, evaluated and eliminated where possible; to know that facilities are available in the community to find the tuberculosis cases early; to have the advantages of an extended dental health program in the schools; to provide for nutritionally better diets in our schools and institutions; to prevent accidental poisoning, drowning or burning (possibly your child); to have at your finger tips accurate recorded vital public health statistical data needed so often in our modern living."

Our people know that more illnesses and injuries are becoming preventable and expect the provision of these newly available preventive health services. It takes more skilled workers to improve school health such as control of disease spread, correct defects, and assure better heating, lighting, ventilation and sanitation of more school lunch rooms. Among other services that require more time, skill and expense are: more immunizations against more diseases; more septic tanks instead of privies; more nurse follow-up under supervision of private physicians as hospital stay is shortened for general, tuberculosis, and mental patients; supervision of larger water and milk sheds and a wider sale area for shellfish, meat and poultry products; better laboratory aids through virol-

ogy, cytology and radiation tests. Better health and higher income flourish together. Your State and local health boards and staffs have a responsibility to see and foresee and interpret health needs for you. What you decide to do with your share of responsibility for preventive health services will have a bearing on happiness and progress in our State.

Summary of budget request. The sums of \$3,022,141 for the fiscal year 1959-60, and \$3,042,236 for the fiscal year 1960-61 were recommended, which is \$15,001 less for the biennium than the requested appropriations which were contained in our original "A" Budget request. We were dismayed to find that none of our "B" Budget request was recommended, which was to provide for improvements in State health services and for aid to local health departments.

We have renewed our request that the \$15,001 decrease be restored and that the additional sums for the expansion of public health services be approved which represent a total request of \$1,163,352 for 1959-60 and \$1,192,193 for 1960-61, or a total of \$2,355,545 for the biennium.

These requested increases, which are exclusive of medical care and tuberculosis and mental hospitals, are needed now to remove some of the unfavorable comparison with neighbor states as shown by a Public Health Survey for fiscal 1958 to be as follows: Georgia \$1.73, Florida \$1.49, Virginia \$1.27, Kentucky \$0.98, Tennessee \$0.89, South Carolina \$0.85, Mississippi \$0.81 and North Carolina \$0.70. We feel that the requests are modest and that they represent one of the soundest investments that the State could make. It is so much more economical to prevent illness or injury and postpone death.

Major requests. This request of \$2,355,545 for the biennium can be briefly summarized. The bulk of the request is for local health services in the amount of \$870,915 per year, which is divided as follows: payments to counties (for additional personnel) \$663,000 (14.7 cents per capita per year to total

46.1 cents compared to \$1.38 for counties this year); mental health centers \$100,000; training of personnel \$53,875; and administration (personnel and additional equipment, Local Health Division) \$54,040. The additional sum of \$25,000 per year is to provide for the Asheville Orthopedic Hospital, which has been included upon their request. The remaining sum of \$267,437 for the first year and \$296,278 for the second year is largely to make more adequate provision for State health services for small counties unable to afford specialized personnel. The major items in these sums are to provide 23 new employees for 1959-60 and 26 for 1960-61, and to transfer from Federal to State 6 key employees and to provide for one employee—librarian—which has heretofore been supported by Reynolds Foundation Funds that are now exhausted. The new employees requested include additional dentists, totaling 6, for the Dental Health Division, and additional health educators, 2, clinical psychologists, 1, and public health nurses, 3, for Local Health Division. Additional employees, 6 in number, have been requested for the Public Health Laboratory because of tremendous increases in the examination of specimens for cancer detection, virology and other important health problems. For mosquito control we need \$140,000 for the biennium. We have requested for the biennium \$51,321 for equipment and \$46,776 for supplies and materials, most of which is for the Public Health Laboratory and Dental Health Division for the re-

placement of obsolete and worn out microscopes, dental engines and analytic balances, and for usable supplies and drugs which are absolutely essential to take care of increasing activities, regardless of whether additional personnel for these Divisions are added. The printing item of \$16,800 for the biennium for the Health Bulletin is occasioned by a ruling of the Attorney General that all rules and regulations must be published and is regarded as an indispensable item. Likewise, the increase in postage is absolutely essential because of increases from the Health Bulletin and visual education including film library services. The request of \$38,124 for the biennium for travel expense is essential for additional employees requested.

I again urge your careful consideration of our requests, which we believe are very vital at this time to deal with increases in population, business establishments, aged groups, new health menaces, such as stream and air pollution and radiation hazards, and many other problems that increase with urbanization and suburbanization, travel, industrialization and wider sale of products. I cannot emphasize too strongly that public health is not an area in which the State can afford to retreat or stand still. Our people expect newly available preventive services and the best protection that can be provided by the State and local health departments. We respectfully urge this General Assembly to enable us to meet the challenge.

Notes and Comment

NEW GUIDE OUTLINES DRIVING FITNESS REQUIREMENTS

A new guide to assist physicians in determining fitness of motorists to drive was published recently by the American Medical Association.

The guide, which appears in the *Journal of the A.M.A.*, was prepared by the committee on medical aspects of automobile injuries and deaths, following a two-year study.

According to the committee, the pur-

pose of the guide is to call attention to the areas in which the medical profession may be of help in combating the serious health problem caused by the large number of automobile accidents.

In an accompanying editorial, the committee said: "Injuries suffered in automobile accidents are an important health problem in the United States. About 37,000 persons were killed in automobile accidents in 1958 and

about 5 million were injured seriously enough to require medical attendance or restriction of their activity for one day or longer.

"Human failure," the report noted, "overshadows all other factors in the production of highway accidents. The human mechanism must be in good condition to cope with the split second timing needed to maneuver high speed motor vehicles.

"The key to ultimate success in automobile accident prevention lies in the driver—his intelligence, his sense of personal and social responsibility, his reactions to various stimuli in normal conditions and under stress, and his driving ability in good health and in illness."

In general, the guide stated, an individual should be assessed medically to determine the answers to the following questions:

—Has the patient any physical and mental ability to manipulate the controls?

—Is the patient likely to suffer excessive fatigue that will impair his driving ability?

—Does the patient have the required vision and hearing for safe driving?

—Has the patient any physical or mental disorder likely to cause confusion or a sudden loss of consciousness while driving?

—Is the patient likely to suffer a temporary impairment of mental, physical or functional capacity due to alcohol, drugs, infections or medical treatment?

—Does the patient have good emotional control, or has he signs of anti-social behavior or an emotional disturbance making it unsafe for him to drive?

The committee said that the physician is qualified by training to ascertain the physical, mental, emotional or physiological impairments of an individual. He is in a good position to evaluate these impairments in relation to safe driving ability.

Frequently, it may be necessary for a physician, recognizing his responsibility for the safety of his patient and the public, to caution the patient

against driving for a certain period of time or even permanently.

In conclusion, the committee said: "It is probable that the next decade will see a greatly increased emphasis upon more stringent physical standards for licensing. It is believed that more and more patients will turn to their physicians for advice and assistance in this regard.

"On the basis of present knowledge, it is believed that a conscientious medical evaluation of the individual's fitness to drive safely, with appropriate follow-up, can reduce motor vehicle accidents very significantly."

ORAL TREATMENT FOR RINGWORM REPORTED

An antibiotic, which can be taken by mouth, has been found to be effective in the treatment of ringworm, according to two Florida dermatologists.

In a preliminary report in *Archives of Dermatology*, published by the American Medical Association, the doctors said they treated 31 patients with various types of ringworm with griseofulvin.

The drug is called griseofulvin for the species of *Penicillium* from which it is made. Penicillin is made from another species—notatum. Griseofulvin earlier was found effective against fungus infection in plants.

When griseofulvin was taken daily by mouth, ringworm of the body and scalp cleared within one to three weeks. Onychomycosis (ringworm of the nails) cleared within three to four months, they said.

This success suggests that "the systemic treatment of superficial fungus infections in man at last seems a near reality," the doctors said. There has been no standard treatment for fungus infections, but it has usually included keeping the area dry and applying various chemicals.

Adverse side effects from griseofulvin appear to be minimal in man, they said. However, animal experiments indicate that griseofulvin affects the blood, and the doctors recommended that regular blood cell counts be made

during prolonged use of the drug in humans.

The duration of treatment required for the various fungi varies, apparently depending on the time required for normal replacement of the infected tissues.

In conclusion, the doctors said that fungus infections of various origins showed "a uniformly favorable response to oral therapy with griseofulvin." Even infections of 60 years' duration responded. However, the chances of relapse or recurrence are still not known.

Drs. Harvey Blank and Frank J. Roth of the University of Miami School of Medicine, Miami, Fla. and the Veterans Administration Hospital, Coral Gables, Fla., were the authors.

USE OF SAFETY CLOSURES FOR DRUG CONTAINERS ADVOCATED

Widespread use of safety closures for drug containers has been advocated by a North Carolina pediatrician.

Dr. Jay M. Arena, Durham, N. C., feels that the adoption of safety closures for all drug containers in common home use could reduce the number of cases of accidental, experimental and innocent ingestion of potentially poisonous drugs.

His observations are reported in the *Journal of the American Medical Association*, following a study of 1,600 homes with children under five years of age.

Accidental ingestion of drugs, Dr. Arena pointed out, causes 35 per cent of the deaths from poisoning of children in the one to five age group. Incidence of poisoning from drugs is much greater than from household agents.

He said: "There is little wonder that poisoning is so frequent in infants and children who learn by exploration, questioning, sampling, and trial and error. They are particularly susceptible to the accidental ingestion of brightly colored, attractively shaped and packaged, sugar-coated drugs of all kinds."

To overcome this problem, Dr. Arena believes that all available safety meas-

ures and precautions should be utilized. Education alone is not enough. "Precautionary labeling and safety closures are good measures . . . in the prevention of these tragic accidents," he added.

Purpose of the study was to test three closures—two of the safety cap variety and one conventional screw cap—to determine which would be the most effective in reducing the chance of small children's gaining access to drug containers.

It was also necessary for these safety caps to be designed and constructed so that mothers could remove and replace them with a reasonable amount of ease and convenience, the doctor said.

As a result of the study, Dr. Arena favors the use of a plastic, snap-on type cap. He said that this closure proved to be the most difficult for children to remove and the easiest for them to replace.

The doctor feels that the ability of easy replacement is valuable since it implies that older inquisitive children can prevent younger infants from gaining access to containers.

In addition, this cap was voted by mothers as the one which they felt was the easiest to securely replace. This is significant, Dr. Arena said, since a loose cap means an open container.

He considered that the children's difficulty in removing the plastic cap and their mothers' ease in removing and replacing the closures made it the choice from both the manufacturers' and families' standpoints.

Dr. Arena is affiliated with the department of pediatrics, Duke University Medical Center.

MENTAL HEALTH RESEARCH STUDIED

A unique state-by-state study of mental health research in the Southern region has been launched by the mental health program of the Southern Regional Education Board, according to Dr. William P. Hurder, director of the program and the study.

"This is perhaps the first time that

a depth analysis of mental health research facilities and activities has been made in the nation or the region," Dr. Hurder said.

The study is designed to get detailed information about the Southern region's resources and needs in mental health and behavioral science research, including research in mental retardation. It will also provide a reliable estimate of research projects in progress and how they are being carried out.

Over 2,000 questionnaires have been distributed to research personnel and their administrators throughout the region with the cooperation of a committee of research survey chairmen appointed by the governor of each participating state.

Analysis of the completed questionnaires is already in progress. The results of the study will be made available to all interested persons through publications and will also be presented at a meeting of educators, legislators and researchers in the fall.

"At the conference we will bring the results of the study to the attention of these decision-makers with the hope of stimulating action for more and better research," Dr. Hurder said.

In addition, he pointed out that the SREB stands ready to assist states in solving those research problems which can best be attacked through regional cooperation.

Answers to the quantitative questions on the questionnaires will be tabulated by technical assistants on the SREB mental health staff, but replies to the qualitative question will be weighed and analyzed by a number of experts in the field.

Screening of these replies will be done by Dr. Walter Isaac, assistant professor of psychology at Emory University, and a standing committee of mental health specialists in the Southern region. With the aid of consultants from all parts of the country, Dr. Hurder will make a final analysis of the qualitative data.

The cooperation of the Bio-Sciences Information Exchange and the Council of State Governments will supplement

the study findings and broaden the scope of the data gathered.

The Exchange is supplying information about current research activities (in the region and the nation) supported by national granting agencies. It is also making its services available for recording and analyzing data on research in progress which come out of the SREB study.

The Council of State Governments will provide data it has collected from the 48 states on methods of organizing and financing state-supported research in mental health and related areas.

Referring to the need for this type of study, Dr. Hurder cited a remark by Admiral Hyman G. Rickover pointing out that the home permanent wave industry budgeted for research into ways of improving the looks of human hair a sum amounting to two cents per capita per United States female. The whole nation, meanwhile, was spending only three cents per capita for research into the distressing things that go on inside the human head.

The regional mental health program was established in 1954 by the SREB at the request of the Southern Governors' Conference and is supported by an appropriation of \$8,000 from each participating state. Its purpose is to aid states and Southern colleges and universities to train more qualified personnel for mental health programs and to aid in securing added support for needed research programs.

The following are serving as state mental health research survey chairmen:

Alabama, Rep. Karl C. Harrison; **Delaware**, Dr. M. A. Tarumianz, State Psychiatrist; **Florida**, Dr. J. T. Benbow, Florida State Hospital; **Georgia**, Dr. Trawick H. Stubbs, State Department of Public Health, (Survey chairman); Dr. Bernard Holland, Emory University, (Chairman, Georgia Committee on Mental Health Research); **Kentucky**, Dr. Harold L. McPheeters, Department of Mental Health; **Louisiana**, Mr. Winborn E. Davis, State Department of Hospitals; **Maryland**, Dr. Richard Lindenberg, Central Anatomic Laboratory; **Mississippi**, Dr. Herdis L.

Deabler, Veterans Administration Center; **North Carolina**, Dr. Myron G. Sandifer, Jr., University of North Carolina; **Oklahoma**, Dr. Hayden H. Donahue, Department of Mental Health; Dr. Margaret Wettstein, Central State Hospital (alternate); **South Carolina**, Dr. W. P. Beckman, South Carolina Mental Health Commission; **Tennessee**, Dr. Raymond J. Ballester, Department of Mental Health; **Texas**, Dr. Wayne H. Holtzman, Hogg Foundation for Mental Health; **Virginia**, Dr. Hiram W. Davis, Department of Mental Hygiene and Hospitals; **West Virginia**, Dr. Margaret T. Ross, Department of Mental Health.

NEW EAR WAX REMOVAL AGENT DESCRIBED

A new chemical preparation that softens impacted ear wax so that it may be easily removed was described in an American Medical Association publication.

"The ease with which this agent facilitates the removal of ear wax is in striking contrast to the cumbersome operative irrigation techniques," according to the article in Archives of Otolaryngology.

The standard method for removing ear wax is to irrigate the ear with water and then remove the wax with a blunt instrument. If the wax has been impacted for a long time, the outer layer of the ear canal skin may become attached to the wax. When the wax is removed, the skin is torn. A wax-dissolving substance will prevent such injury to the skin.

The new preparation, with the trade-names Cerumenex and Cerulau, is put into the ear a day or two before the wax is removed. By that time, the wax is soft and loose and easy to remove.

The preparation was used on 230 patients with varying degrees of excessive and impacted wax. A "dramatic" wax dissolution was observed in most instances, with complete removal in 204 patients (88.7 per cent). Nineteen (8.2 per cent) had good results and seven (3 per cent) poor results. No patient showed an adverse reaction to the agent.

The report was made by six researchers, headed by Dr. Arthur C. Reiniger, chief of the department of otolaryngology at the Stuyvesant Polyclinic, New York.

SAFETY RULES GIVEN FOR SKIN DIVING

Because man is not designed or equipped to be under water safely, the skin diver must "be as careful as possible" in his preparations for diving, a San Francisco physician said recently.

Writing in the Journal of the American Medical Association, Dr. Robert W. Keast said accidents and deaths have increased as skin diving has increased in popularity. For example, in California there was approximately one death per month between January, 1953, and April, 1955, in addition to many nonfatal accidents.

Many of these accidents can be avoided if the diver is properly prepared and is aware of the dangers involved. Dr. Keast outlined some of the dangers of skin diving and some of the requirements for safe diving.

Because skin diving can be exhausting, the diver must be in good physical condition. He must know how to swim well and be familiar with other water sports. No one with chronic cardiovascular or respiratory ailments should dive. Neither should an overweight person.

"There are also psychological requirements for a good or, indeed, even a safe diver," Dr. Keast said. "The person who is very nervous, is easily upset, lacks self-confidence and might panic at the onset of an emergency should never attempt to dive.

"The show-off type, the dare-devil who takes chances and loves to show his superiority over others, is a dangerous diver whose diving should be controlled as much as possible."

There are two types of skin diving—free diving in which the person takes a deep breath, holds it and returns to the surface when his breath is gone; and scuba diving, in which a self-contained underwater breathing apparatus or "lung" provides compressed air or

oxygen for use under water.

The physical laws of gas behavior impose limits on man's underwater activities, and most of the dangers of skin diving are associated with this problem of gas volume and its compression and expansion as the body undergoes various pressures under water.

The dangers include, according to Dr. Keast, the following:

—Drowning as the result of exhaustion, oxygen lack and carbon dioxide excess is one of the most common causes of death. One of the most effective safety devices is some type of float (perhaps an inner tube) with a line on it at least three times as long as the planned diving depth and a two- or three-pound anchor at the end. This float provides a place to rest.

—Air embolus occurs when an individual inhales at increased pressures a full lung of air and then rises rapidly through the water to a much decreased pressure. The lower pressure allows the air in his lungs to expand and tear the lung tissue. Air bubbles then enter the blood stream and may be carried to the heart where they cause death. Mild cases are treated in the same way as shock. The symptoms are bleeding from the lung, shortness of breath, blueness of the skin and collapse.

—Caisson disease (the bends) is related to the amount of nitrogen in the tissues and the pressure under water. The main symptom is pain, especially in the tendons and the spinal cord area. It is treated by placing a person in a decompression chamber and slowly lowering the air pressure.

—Nitrogen narcosis or "raptures of the deep" is also the result of pressure on the inhaled air. "Below a level of 100 to 160 or 170 feet, depending on the individual, there is a gradually increasing feeling of exhilaration and euphoria, similar to an acute alcoholic bout and described as a feeling of wanting to remove the mouthpiece of the scuba unit and to hand it to a passing fish because it is not needed."

Fatal errors in judgment may occur as a result of the condition. The treatment is immediate return to shallower depths where symptoms immediately disappear.

—Oxygen poisoning, in which dizziness, headache, muscle twitching and convulsions with coma occur, results from breathing oxygen under high pressures. The treatment is simply to come up from the depth at which symptoms begin, and they will decrease rapidly.

Dr. Keast's article is one of several in the Journal dealing with various types of sports injuries.

PROLONGED SLEEPLESSNESS MAY PRECIPITATE MENTAL ILLNESS

Prolonged insomnia may be the precipitating factor in some cases of schizophrenia, three Salt Lake City physicians have suggested.

Schizophrenia, sometimes called "split personality," is a serious and widespread mental illness in which disorientation and loss of contact with reality occur.

Many agitated persons on the brink of a psychotic break suffer from severe insomnia and a few pass through a prolonged period of wakefulness as the schizophrenic process unfolds, the doctors wrote in *Archives of Neurology and Psychiatry*, published by the American Medical Association.

Such sleep deprivation, when combined with isolation and incapacitating anxiety, may have an illness-causing "potential that has not been adequately appreciated," the doctors said.

Their interest in sleep deprivation and its relation to schizophrenia was aroused when two patients underwent serious emotional disturbances, culminating in prolonged periods of insomnia, followed by outright psychotic attacks.

Both patients were "racked with intense psychological pain and overwhelmed by seemingly insoluble problems. Both failed to sleep for several days, emotionally isolated themselves, and became psychotic," the doctors said. In each case, the schizophrenic episode was brief and the patients re-

covered rapidly with treatment.

To learn more about sleeplessness, the doctors conducted several tests. Seven medical students were kept awake for 72 hours in a friendly, social situation; four students were given LSD-25, a drug which will produce hallucinations when given in the correct amount, after being awake for 48 hours, and one student was studied extensively for changes in metabolism after being fed a balanced diet for a week and then kept awake for 72 hours.

Some of the findings of the tests follow:

—Even when deprived of sleep, the seven men could mobilize their intellectual facilities when confronted with learning tests of short duration. However, their informal behavior reflected intellectual deterioration. They forgot their fellow-participants' names; they were confused about what they had said in casual conversation, and they were unable to give clear resumes of their thoughts, which had become confused.

—A "drive test" in which the men were asked to grade their preference for items involving sex, food, sleep, exercise, intellectual activity and hostile behavior, showed that a desire for sleep became prominent. A less expected finding was a persistent and sustained interest in food and sex.

—As the test progressed, the students lost their ability to judge the passage of time correctly. To some, time became a "hodge-podge," with the hours fleeting by, but the days lasting endlessly.

—The pattern of sleepiness followed the normal day-night cycle. The students tended to be less sleepy during the hours they were accustomed to being awake and more sleepy late at night and early in the morning, when they were usually asleep.

—The four students who received LSD-25 (lysergic acid diethylamide) after 48 hours of wakefulness developed hallucinations, even though they had all previously received similar amounts of the drug and had not experienced hallucinations. It thus appears that

sleep deprivation enhances the disruptive effects of LSD-25 on the human ego.

—The metabolic study showed that 72 hours of sleeplessness had no effect on the normal chemical functioning of the body.

—The various psychological changes (hallucinations, motor incoordination and confusion) experienced by the seven students were inconstant and came in waves, coinciding with periods of intense somnolence. They probably represented states when the subjects were "asleep on their feet."

The doctors said that no subject became psychotic. "One can only infer that if these changes were to occur in someone who was also profoundly anxious and deprived of group support, more serious psychopathological sequelae (consequences) might result," they said.

While the observations are not conclusive, they do suggest that prolonged sleep deprivation may be "a critical factor in the precipitation of a few schizophrenic illnesses," the doctors concluded.

The authors are Drs. Eugene L. Bliss, Lincoln D. Clark and Charles D. West of the departments of psychiatry, biochemistry and medicine at the University of Utah College of Medicine and the Veterans Administration Hospital, Salt Lake City.

VENEREAL DISEASE STRAIN MAY BE STAGING COMEBACK

Acute venereal disease may not be a medical chapter of the past, a Wisconsin physician said recently.

His conclusion is based on a study which indicates that the bacterium causing one form of venereal disease—gonorrhea—is developing a resistance to therapeutic penicillin injections.

Dr. Ernst Epstein pointed out that it previously had been assumed that acute gonorrhea had largely been banished by penicillin. As a result of this study the situation is now changed. "No longer can acute gonorrhea be considered lightheartedly as a disease with certain cure and less disability than a common cold," he said.

His opinions are based on a study conducted in 1958 while he was serving as a captain in the Army medical corps in Korea and are reported in the Journal of the American Medical Association.

The study included the examination and treatment of 146 servicemen infected with gonorrhea. They were given a series of five daily injections of penicillin. Results indicate a 20 per cent failure to cure the disease.

Commenting on this fact, Dr. Epstein said: "A 20 per cent treatment failure rate is both unusual and unsatisfactory." Previous studies cited by the physician indicate a treatment failure between one and five per cent.

The doctor discarded reinfection as a factor in the high percentage of failure. He said: "All patients were restricted to Army compounds for two weeks and carefully questioned regarding further sexual contacts.

"These considerations do not rule out the possibility that an occasional treatment failure was the result of reinfection. However, they do eliminate reinfection as an explanation for the 20 per cent failure rate."

Dr. Epstein attached "grave significance" to the study. "It is probably only a matter of time until penicillin resistance will be met on an increasing scale all over the world."

To combat this new immunity, Dr. Epstein called for more careful and prolonged follow-up studies coupled with other exhaustive tests to find a cure.

Dr. Epstein is now engaged in the private practice of medicine in Marshfield, Wis.

FOOT CURE RULES LISTED IN TODAY'S HEALTH

By using his head, a person can save his feet, his posture, his disposition, and maybe even his general health.

Foot troubles are unnecessary, but many people have them—usually because they "abuse their feet unmercifully." Some tips on foot care are listed in Today's Health, published by the American Medical Association.

Heels on shoes are a major source of

foot trouble, the article said. One New York orthopedist has observed that a woman's foot troubles begin when she starts buying shoes in the woman's department.

The article recommended that heels be no higher than one and one-half inches; that shoes have plenty of toe space to prevent cramping and that they fit snugly to give support.

Shoes should be purchased late in the afternoon, since feet swell during the day and are slightly larger at that time. Shoes should never be bought by the size; the feet should always be measured.

Extreme care should be taken in buying shoes for children. Hand-me-down shoes should be avoided since they almost never fit properly. Children's feet grow at "an astonishing rate," the article noted. On the average a child will outgrow a pair of shoes in three months. The shoe should be three-fourths of an inch longer than the longest toe. Leather shoes are best, but canvas shoes are all right for playing, provided they are not worn constantly, the article said.

The article also said:

—Corns are simply masses of dead skin cells with a sensitive core, caused by excessive rubbing. Cutting corns is not advisable and neither is the use of drug store corn removers. The safest home treatment is a simple non-medicated moleskin plaster, which will lessen pressure and pain. A well-fitting shoe, however, is the best corn remover.

—Bunions result when toes are cramped and the ends of the bones next to the toes thicken, causing heavy calluses to form. At times the condition becomes serious enough to require surgery. A long course of exercises may restore normal function.

—Ingrown toenails occur when the shoes are cramped and the nails are improperly cut. They should be cut straight across.

—Athlete's foot is usually a minor nuisance. If it occurs, the feet should be washed daily and dried thoroughly. It is vitally important to keep the feet dry. Boric acid foot powders help,

and so does ordinary talcum.

—Some footaches can be traced to poor circulation. Propping the feet up on a desk or table from time to time will help relieve the pain.

"If your feet hurt, go to a specialist: an orthopedist who is medically trained. If your foot ailments are minor, temporary relief may be provided by a chiropodist or podiatrist," the article said.

The article was written by John Frazier, of New York.

MEDICAL RESEARCH IN ENGLAND NEEDS GREATER IMPETUS

The current path of medical research in England is discouraging rather than encouraging young people to enter a career in the basic sciences.

Unless this trend is reversed, a gradual lowering of the standards of medicine, even at the practical level, is expected.

These conclusions are reported in the *AMA News*, a publication of the American Medical Association. The report is based on an original article appearing in a recent issue of *The Lancet*, an independent British medical journal.

Following 11 years of socialized medicine in England, the British state that they now have more medical specialists than ever before. They said: "We should not pretend that this growth in specialist services will by itself keep British medicine in the forefront.

"We cannot maintain our standards without the vigorous pursuit of research in our medical schools, for even good routine will decline without the stimulus of critical thought engendered by investigative work."

Principal reason cited for this downward trend is the lack of encouragement, support and opportunity given the young student in laboratory and investigative work.

This lack is illustrated in the following manner:

—No new teaching hospitals have been developed in England since before World War II.

—At present there is no surgical

animal research laboratory in any English university. One is now nearing completion, however.

—Careers in basic medical science have become unattractive in salary.

—Research directors and medical professors, as well as promising young investigators, are being lured to the United States.

The British point out that those scientists coming to the United States are given encouragement, lavish support and almost unlimited opportunity in their laboratory and investigative work.

With their small population and national income, the English feel they cannot spend as much money on research as does the United States. They said, however: "We could with advantage spend more than we do, and we should make sure that our resources are used with imagination.

"Our Commonwealth links no longer depend on the strength of our military force, but on our scientific, cultural, and commercial leadership. Progress in one science inevitably impinges on all associated branches.

"In this country we have no lack of talent; but without more financial encouragement, more laboratories, and more facilities for research, we shall lose our best workers, and gradually the standards of medicine even at a practical level will decline."

NEW EXPLANATION OFFERED FOR ALCOHOLIC LIVER DISEASE

A new explanation for the occurrence of cirrhosis of the liver in chronic alcoholics has been offered by three Cleveland physicians.

Cirrhosis occurs in about one of 12 alcoholics. When treatment is begun early, the disease can be stopped, but when treatment is delayed, the mortality rate is very high.

A dietary deficiency resulting from reduced food intake in chronic alcoholism has long been thought to be the cause of the liver damage.

The Cleveland physicians, however, believe it results from the malfunctioning of the pancreas, which is damaged by excessive alcohol consumption.

DIVISION OF PUBLIC HEALTH
MEDICAL SCHOOL, U. N. C.
CHAPEL HILL, N. C.



The Health Bulletin

Published by the NORTH CAROLINA STATE BOARD OF HEALTH

! This Bulletin will be sent free to any citizen of the State upon request !

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

May, 1959

No. 5



**TRANSLYVANIA COUNTY HEALTH CENTER
BREVARD, NORTH CAROLINA**

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List of free health literature will be supplied by local Health Departments
 or on written request.

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Public Health And The Practicing Physician

By Charles R. Bugg, M.D.,
 President, State Board of Health

The customary detailed report on the State Board of Health activities is hereby provided to the Medical Society of the State of North Carolina.

Having been suddenly projected into the public health field two years ago after more than thirty years of private practice, I have had a fine opportunity to learn how little the average practicing physician knows of the activities of the State Health Department, which is so closely allied with the State Medical Society and with the doctors' work.

I humbly confess that I do not know as much about it as I would like to and as I hope to.

In this short time allotted to the State Board of Health it may be well to mention some of these activities and problems and to raise some questions to which we are seeking the answers.

Is the public money being used most economically and effectively for the purpose intended—to maintain and promote health? Are adjustments being made promptly to make immediate use of new knowledge on prevention, early case finding, rehabilitation, sanitation and health education? Are undesirable activities avoided? Is there dup-

lication of, or infringement on, private practice? What services should be added? Is quality work assured and adequately supported? Could certain activities be done better elsewhere? Could we in private practice do more in the preventive field? Are some needed health services being splintered into agencies having less scientific guidance?

Have we helped the public to understand that the shifting emphasis from control of communicable diseases toward cutting down on chronic degenerative diseases, accidents and mental disorders involves more trained personnel, more time and more investments?

The answers to these questions are what the Board is seeking. I am pleased to say that I believe the best interests of our people are being served to the limit of available personnel and budget. We welcome advice and constructive criticism. Please feel free to give them to us, especially those with reference to any real or theoretical encroachment on private practice.

The fields of public health and private practice are closely related and should supplement each other. Of course there is overlapping. It is our desire that the two work as partners and that at the overlapping points there be a minimum of conflict. This requires real wisdom, yours and ours. Most of us on the Board fall into both classifications—public health and private practice. We will be receptive to your advice and counsel. We are all dedicated to the same cause—the health of our people.

I have been pleased to see the excellent administration of the Health Department, the fine coordination of the divisions and the high type of personnel from top to bottom.

In North Carolina we have made traditionally full coverage extending to the one hundred counties with limited centralization and much local autonomy. The public attitude toward physicians cannot be as good in the many states where rural areas have no preventive services but where as much is

spent on a large central office and in a few cities.

It is apparent that, without the preventive services supplementing the work of private physicians, dentists and nurses, our welfare taxes would be skyrocketing faster than they are. This brings up a consideration of our budget request before the 1959 General Assembly and our conjoint duty to assure the continuation of these long-range tax-saving preventive health services. The one per cent increase limit now officially recommended is inadequate to even assure continuation of present services. Starting on a fifty-fifty basis of sharing costs, the State-county ratio support of local health departments has dropped to an unfair 17-76 basis. Instead of proud leadership among states of our Region on the total annual per capita State appropriation for public health, we are faced with embarrassing 1958 comparisons as follows: Georgia \$1.73, Florida \$1.49, Virginia \$1.27, Kentucky \$0.98, Tennessee \$0.89, South Carolina \$0.85, Mississippi \$0.81, North Carolina \$0.70.

The scope and volume of public health work would surprise the average doctor. Perhaps few physicians realize that our Board creates sanitary districts and, to extend the bonded indebtedness for water and sewer facilities beyond a certain limit, cities must have an order from our Board. Our State and local laboratories have extended their aid to private physicians in early case finding. Virology and cytology are among the newer aids. Reduction of stream and air pollution and radiation protection will benefit everyone. Safe milk and food and clean beaches, pools and summer camps improve income and business. Occupational health services help to assure fewer growing pains from our industrialization. Valuable assistance is provided our Medical Society Study Committees through the processing of vital data in the Statistics Section of the State Board of Health. Closer working together of private practitioners and public health staffs can certainly cut down on chronic diseases. A start has

been made in some areas against cancer and diabetes, and a small study project is underway in Person County, where chronic disease home nursing is provided under direct instructions of the private physician in charge of each case. Our conjoint efforts with mental hospitals, similar to those long carried out with tuberculosis hospital staffs, should be equally rewarding. Our conjoint efforts in saving mothers and babies have removed many of the old heartaches from obstetric and pediatric practices. Might not similar coordinated work make some of our geriatric problems more hopeful?

Our State and local health staffs provide services to many other agencies to avoid duplication of personnel, effort and cost. Examples are: school health work including inspection of schools and lunchrooms; dietary consultation and sanitation inspection of hospitals, nursing and boarding homes, prisons, jails and other institutions; occupational health work with Industrial Commission and Labor Department; approval of plans for sanitation and food

service with Medical Care Commission; extension services with State tuberculosis and mental hospitals; and cooperation with the Department of Conservation and Development in furnishing to prospective industry our data on quality and quantity of available water supply and waste treatment needs at sites being considered for new plants.

In conclusion, I wish to assure every physician of the satisfying and constructive experience to be gained in becoming better acquainted with the work of other doctors in the State. There has never been a time when there was more need for our mutual understanding, cooperation and working together as a team for our own and the public good. We cherish our freedom and want to preserve our fine system of fee-for-service private practice. To do so, our public health physicians, as well as our friends in teaching and research, are our allies, and we should do all possible to assure a continuation of our conjoint services to our State.

Notes and Comment

Historical Note

(Bulletin of the New York State Department of Health)

The largest medical fee of which there is authentic record was that paid in the latter part of the 18th century to the English physician, Dr. Thomas Dimsdale, by the Empress Catherine II of Russia for inoculating her infant son against smallpox. The doctor spent several months in Russia, instructed many Russian doctors in the procedure of inoculation, treated many members of nobility and received \$50,000 and a life pension of \$2,500 a year.

UNC SCHOOL OF PUBLIC HEALTH TO HOLD SHORT COURSE IN JUNE

The University of North Carolina School of Public Health will hold a short course on "Principles and Practice of Sanitation" June 8-July 3.

The four-week course will consist of

instructions in the application of basic science to practice in design, operation and control of water supplies; and sewage disposal installations.

The course also will cover swimming and other recreational facilities, procedure for the control of insects and rodents, refuse handling, food and milk, air and radiation hazards and related activities in the control of the environment.

A total of 20 hours a week will be given in instructions, of which 10 will be on class and 10 will be in the laboratory.

The tuition and fees will be \$41 for residents of North Carolina and \$61 for out of state residents. Dormitory rooms will be available and those taking the course may eat at the University Cafeteria.

For complete information concerning the course, persons are requested

to write the Department of Sanitary Engineering, UNC School of Public Health, Chapel Hill.

UNC SCHOOL OF PUBLIC HEALTH NOW ACCEPTING APPLICATIONS FOR SUMMER SCHOOL COURSES IN P. H. NURSING

The University of North Carolina School of Public Health is now accepting applications for its annual summer program in Special Fields in Public Health Nursing.

These four week-long courses usually attract about 200 students each summer from throughout North Carolina and the Southeast.

The courses are given for public health nurses, institutional nurses, private duty nurses, health educators, personnel of voluntary health agencies and community workers. The courses will begin on July 5 and continue through Aug. 1.

The first course will be offered July 5-11. This will be "Tuberculosis Control." It will be taught by Mrs. Margaret B. Dolan, associate professor of public health nursing, UNC School of Public Health.

The second course will be on "Cancer Control." This will be offered July 12-18. It will be taught by Miss Katherine Nelson of the Teacher's College, Columbia University, New York.

Mrs. Lydia Hall of the Leob Nursing Center Project, Montifiore Hospital, New York, will teach the third course on "Chronic Diseases." This will be given July 19-25.

"Cardiovascular Diseases" is the subject of the fourth and final course. This course also will be taught by Mrs. Hall. It will be offered July 26-August 1.

The tuition fee for these courses is \$10 per week. Additional information may be had by writing the UNC School of Public Health, Chapel Hill.

NEW TELEVISION CAMERA HELPS IN MEDICAL TEACHING

A small television camera that is worn on the head has been devised to solve a difficult medical teaching problem—showing students critical areas

within the ear, nose, throat and other body cavities.

A pilot model of the camera has already been used in ear, nose and throat teaching. The camera is attached to a helmet worn by the examining doctor. Through a periscope lens, the camera picks up a picture of the cavity and carries it by closed circuit to a television set, which may be watched by any number of students.

The new teaching device is described by Paul Moore, Ph.D., and Hans von Leden, M.D., Northwestern University Medical School, Chicago, in the Journal of the American Medical Association.

They explained that normally only one person can look into a body cavity at one time. The problem in the past has been solved through the use of mirrors, which allows one other person to see, and photography, which, of course, prevents the students from seeing the area at the time the examination is done.

The authors believe that the new camera solves these and other problems. It allows the examiner to see the field clearly; it allows him normal range of motions, and it allows others to see the very same area as he.

It has already been used in the clinic, classroom and operating room and could be used for postgraduate teaching of physicians in their own homes, offices or hospitals, the doctor said.

The camera is mounted on a fiber-glas helmet, with a periscope attached to the camera. The mirror and lens system of the periscope is so constructed that the image is reflected upward to the camera lens while allowing the same image to pass through to the eye of the examiner, the authors explained.

The camera weighs about 18 pounds—too much for an individual to carry on his head; therefore, a flexible supporting system comprised of a counter-weighted bar resting horizontally on an adjustable vertical shaft with a T-shaped unit suspending the helmet was devised.

Light is provided through mirrors

or a small lamp attached to the periscope.

The pilot model still needs some modification, the authors said. They hope that it can eventually be made to carry color, which would help to delineate the natural features of the areas being examined.

MEDICINE-PRESS COOPERATION SAVES CHILDREN'S LIVES

Many small children may be saved from death because physicians and newsmen have cooperated in alerting the nation to the danger of plastic drycleaning bags.

The danger, according to an article in the *Journal of the American Medical Association*, is that they may cause suffocation.

The nationwide alert went out this spring after four Phoenix, Ariz., children died by suffocation while playing with plastic bags.

Dr. Paul B. Jarrett, chairman of the Maricopa County Medical Society's safety committee, became concerned, drafted a warning and sent a copy to the Arizona Republic, "a newspaper whose editorial staff immediately recognized a public service duty inherent in the news itself," according to the *Journal* article.

Wire services picked up the story and carried it across the country. The A. M. A. Committee on Toxicology sent a warning to health departments, poison control centers and other interested groups. Health departments in Chicago and New York issued their own warnings and the National Safety Council later prepared one.

"There is no way," the article said, "of determining how many young lives will be saved because of one physician's alerting many—and because of newsmen's then carrying the work to millions. That young lives were and will be saved cannot be doubted . . ."

Dr. Jarrett was quoted in the article as explaining how the plastic bags cause trouble. He said: "An electrostatic charge may have been generated by friction from handling. The youngster, in peering through this material, is apt

to have it literally grab him through electrical attraction to his face. If this happens, only the prompt intervention of an adult will prevent tragedy.

"This dangerous material won't tear when a child fights it. Dizziness, inability to think, spasms of muscles occur with more and more rapid breathing. Vomiting with inhalation of undigested food puts a finish to this terrible tragedy."

Dr. Jarrett believes that the alarm against these bags—now used so often by laundries and drycleaners—cannot be repeated too often.

He said: "Such a horrible combination as a child playing with a venomous reptile would not result in death as quickly as suffocation by the plastic film which clings to the face with diabolical tenacity.

"These deaths are the result of carelessness. They could have been prevented. Through knowledge they will be prevented in the future."

A.M.A., NUTRITION FOUNDATION GIVES RESEARCH FELLOWSHIPS

Researchers in nine American universities have been awarded fellowships for research in clinical nutrition by the American Medical Association Council on Foods and Nutrition and the Nutrition Foundation, Inc.

The fellowships are granted to medical students for research in some phase of clinical nutrition during the non-academic portion of the school year. Consisting of \$600 each, the grants are awarded through senior investigators.

The grants are part of the joint effort of the Nutrition Foundation and the A.M.A. council to stimulate staff members and students in medical schools "to take a more active interest in the science of nutrition as an integral part of medical practice," the *Journal* article said.

The 1959 fellowships were awarded for the following research:

—Niacin and niacin-containing cofactors in hepatic lymph. Senior investigator, L. S. Dietrich, Ph.D., department of biochemistry, University of Miami.

—The possible biosynthesis of vitamins A and D in fish. James H. Jones, Ph.D., department of biochemistry, University of Pennsylvania.

—The effects of iron stores and growth on iron absorption. Thomas C. Chalmers, M.D., department of medicine, Harvard University.

—Vitamin supplementation and the excretion of urinary oxalate. Hans H. Zinsser, M.D., department of urology, Columbia University College of Physicians and Surgeons.

—Cholesterol and carbohydrate metabolism. W. H. Sebrell Jr., M.D., Institute of Nutrition Sciences, Columbia University School of Public Health and Administrative Medicine.

—Studies on the rate of hydrolysis of vitamin A esters. Edward G. High, Ph.D., biochemistry department, Meharry Medical College.

—The determination of body density of infants and children and the effect of diet on body composition. Samuel J. Fomon, M.D., department of pediatrics, State University of Iowa.

—An enzymatic and metabolic study of specific amino acids and the effect of certain nutritional conditions. Alton Meister, M.D., department of biochemistry, Tufts University.

—Protein and amino acid requirements of rats following experimental injury. Otto W. Neuhaus, Ph.D., department of physiological chemistry, Wayne State University.

—The relationship of lipemia clearing to coronary artery disease. John F. Mueller, M.D., department of internal medicine, University of Cincinnati.

CHILD'S ELBOW MAY BE INJURED BY SUDDEN JERK OF HAND

A sudden jerk on a small child's hand, which lifts him off his feet, may injure his elbow, a North Dakota orthopedist warned recently.

The injury, first described in 1671, is sometimes called "nursemaid's elbow." Actually it is a dislocation of the upper end of the radius, the long flat bone on the inside of the forearm. The radius, being directly fixed to the bones of the

hand, is pulled out of the ligaments at the elbow.

According to Dr. George M. Hart, Northwest Clinic, Minot, N. D., the injury usually occurs in children between the ages of two and four years and rarely after the age of six.

Writing in the *Journal of the American Medical Association*, he reported seven cases of the injury. They had occurred in several ways—when the child rolled on the arm, when a cousin twisted the child's arm and when the child fell on the arm. The most common means of injury, however, is when the child's hand is jerked and he is pulled off his feet.

After injury there is pain in the region of the elbow, the child refuses to use the arm, and he holds the elbow slightly bent and the forearm with the palm turned down.

The treatment is simple, Dr. Hart said. The affected elbow is grasped with one hand with the thumb on the head of the radius. The forearm is held with the opposite hand at the wrist and extended.

The forearm is then forcibly turned so the palm faces upward and at the same time slight pressure is applied at the radius head with the thumb. Upward pressure may be made on the forearm so that the radius is pushed upward. As the manipulation is carried out, a slight click is often felt over the head of the radius, and pain and limitation of movement are relieved.

"Reduction is usually so easy that it may occur spontaneously," Dr. Hart said, "or may be accomplished by the parent or x-ray technician during manipulation of the arm."

After the bone is back in place, the arm should be put in a sling for a few days and care should be taken that the child's forearm is not pulled, he said.

NEW OPERATION DEvised FOR CORRECTING "LOP" EARS

The only way an "outstanding ear" can be made less prominent is by taking the spring out of the cartilage that provides its skeleton, according to a

Boston ear, nose, and throat specialist.

Cartilage is "nearly a perfect spring in that it may be bent for long periods of time, but once the force which holds it is released it will spring back to its former shape," Dr. Edgar M. Holmes said.

Any procedure to alter the shape of a "lop" ear must first "remove the temper of the cartilage before it will remain in its new position," he said. A number of procedures have been used, but most of them present such varying difficulties as scars or ugly creases in the skin of the back of the ear.

Dr. Holmes, however, has developed a new surgical procedure that seems to work better than the older methods. He described it in *Archives of Otolaryngology*, published by the American Medical Association.

In the operation, the skin on the back of the ear is folded back, exposing the cartilage. A row of small cuts from top to bottom is made in the part of the ear nearest the head. Following this more rows of tiny cuts are made, overlapping each other, until the entire area to be bent is covered. This gives the appearance of fish scales or shingles on the roof and also breaks the spring of the flat surface which is to be bent.

When the spring has been sufficiently broken, the ear will remain nearly in its new position without holding it, Dr. Holmes said. When the ear is in its correct position, there is a small amount of excess skin, which is removed before the skin is closed.

A pressure dressing is applied and left in place for a week, when the stitches are removed.

The new technique permits the bending of a malformed ear to a more normal position without creating secondary undesirable deformities or irregularities, Dr. Holmes said.

VALUE OF UNSATURATED FATS DEPENDS ON REST OF DIET

Vegetable oils will produce a lowering of the blood cholesterol levels only when combined with a diet that is

sharply limited in the use of saturated or "hard" fats, three New York researchers said recently.

The addition of unsaturated fats to the diet has frequently been suggested as a way of reducing blood cholesterol levels and thereby perhaps helping to prevent heart disease.

However, unsaturated fats will not help unless the diet is restricted in saturated fats, such as beef fat, according to Dr. Richard Perkins, Dr. Irving S. Wright and Barbara W. Gatje, B.S., of the vascular section of the New York Hospital-Cornell University Medical College department of medicine.

Writing in the *Journal of the American Medical Association*, they reported giving two types of unsaturated fats—safflower oil and corn oil—to 22 medical students for periods of seven weeks.

The students followed their normal diets with the addition of the vegetable oils. The oils also contained pyridoxine (Vitamin B6) which is thought to be involved in fat metabolism.

As had been the case in previous studies, there was a considerable variation from week to week in the cholesterol levels of individuals, the researchers said. There was a slight downward trend in the levels, but at no time was the decrease statistically significant.

"There is little doubt," the researchers said, "from the reports of other experiments that the use of either corn oil or safflower oil, substituted for most of the fat in the diet, will produce a significant decrease in serum cholesterol levels.

"But in this study, the results of the use of these oils as supplements to a regular diet were not significant enough to justify this as a therapeutic procedure."

In conclusion, they said: "Significant results should not be expected from the use of corn oil or safflower oil, even with the addition of pyridoxine, as a supplement to the usual American diet . . . This study reemphasizes the fact that, if one wishes to produce a significant lowering of the serum chole-

terol level, unsaturated fats should be used only when combined with a diet which sharply limits the use of saturated fats."

UNUSUAL SKIN DISEASE REPORT- ED BY BOSTON DERMATOLOGIST

An unusual skin disease—sweat band dermatitis—has been reported by a Boston dermatologist in the *Journal of the American Medical Association*.

Dr. George E. Morris, a member of the A.M.A. Committee on Occupational Dermatoses, said sweat band dermatitis has not been reported recently in the United States because tanning materials containing chrome—a common cause of such skin disorders as shoe leather dermatitis—are not used in the preparation of sweat bands.

However, Dr. Morris has seen three cases of sweat band dermatitis in recent months. One resulted from a sensitivity to chrome, but not because it was present in the sweat band.

The man worked in a tannery. He was sensitive to tanning substances and had a rash on hands, arms and other parts of the body that were in contact with the tanning solution. He developed the sweat band dermatitis because he had been wiping the perspiration off the sweat band with his hands, which were contaminated with the tanning solution.

The other two cases were not related to tanning substances. One man was sensitive to the material used to "finish" the paper sweat band of a painter's cap. The other was sensitive to the oil used in the ropes with which he worked. The sweat band dermatitis developed when he wiped the sweat band of the cap with his hands, which were contaminated with the oil.

Dr. Morris noted in conclusion that sweat band dermatitis is usually caused by a finishing agent for paper or synthetic fibers or by substances rubbed onto the sweat band by the hands.

EXECUTIVES SHOW LESS VASCULAR DISEASE THAN NONEXECUTIVES

Being an executive doesn't neces-

sarily mean that you have high blood pressure or hardening of the arteries.

In fact, a recent five-year study of more than 2,000 individuals showed that executives had less hypertension and arteriosclerosis than did non-executive office workers of comparable sex, age and work environment.

The study, reported in the *Journal of the American Medical Association*, was made by Dr. Richard E. Lee, New York Hospital-Cornell University Medical College, and Dr. Ralph E. Schneider, New York University College of Medicine.

The authors defined an executive as a person dealing with policy formation and implementation. The 1,171 male executives studied ranged from "top executives" (board directors, corporate officers and general managers) to "minor executives" (division heads, auditors and others of lesser rank than department heads).

Also studied were 1,203 nonexecutives, of whom 563 were women. They included stenographers, secretaries, clerks, assistant supervisors and supervisors.

Of the executives, 12.3 per cent had some type of high blood pressure, as did 15 per cent of the male nonexecutive over 40 years of age. Arteriosclerosis of some type was found in 7.8 per cent of the executives and 15.4 per cent of the nonexecutives.

No significant relationship was found between the incidence of heart attacks and the level of business responsibility, the authors said. Heart attacks occurred in 3.7 per cent of executives and 5.1 per cent of the nonexecutive males over 40.

Among the reasons suggested by the doctors for the less than expected rate of executive vascular disease is that these men have learned the value of "escape valves" and the need for outside avenues of expression, such as hobbies.

"The lack of an increased incidence of hypertension among executives as a 'stress' phenomenon further emphasizes the importance of reaction by the individual to his environment rather than the physical and intel-

lectual demands of that environment per se," the authors said.

"Stress is a relative and a subjective matter. When the inherent capacities of the individual to perform fail to measure up to the demands of his world, the harmonious balance between the subject and his environment is disrupted and a stress reaction takes place," they continued.

This occurs, they added, "regardless of whether the factor in the external environment is a speedily approaching deadline for a frantic technical assistant or the threatened failure of a large business venture for the director in charge."

In conclusion, the authors wondered if "at least a part of the recent emphasis on dangers of executive life to the vascular system may be based more on knowledge of the exceptions rather than of the rule."

MEDICINE AND RELIGION FIGHT ALCOHOLISM

Medicine and religion have joined forces in a concerted effort to stamp out alcoholism.

"With the possible exception of mental illness, no single bodily disease is receiving so much concurrent attention from medicine and religion as is alcoholism," a special article in the *Journal of the American Medical Association* said.

This close rapport of clergymen and physicians, the article said, has brought about a beneficial interchange of attitude and action toward the alcoholic.

It is now realized "that the moral implications of alcoholism are primarily effects rather than causes of the disease," the article pointed out.

Compulsive drinking "is immune to punishment and sermonizing." Alcoholism "is a disease which is best assailable under a compassionate and concerted attack by many segments of society."

One reason that alcoholism is such a difficult disease is that its exciting agent, alcohol, is a two-faced creature—a liquid that holds both good and evil, that can provide release or can

enslave, the article continued.

"Drink has taken five million men and women in the United States . . . and new acquisitions are going on at the rate of 200,000 a year," it said.

"The disease that lurks in alcohol is a fickle-tyrant—choosing, unexplainably, the one drinker out of every 16 over whom it is able to exert complete control," the article stated.

Attention was also called in the article and accompanying editorial to the fact that the great majority of drinkers cannot acquire this sickness no matter how hard they may try.

Alcoholism, like cancer, the article said, "cannot be implanted in simply anyone by physiological means alone."

There is no known cause of alcoholism, no specific treatment, no fool-proof method of picking out victims in advance. "An alcoholic's proneness to the disease is a secret between him and the bottle," said Dr. Marvin Block, Buffalo, N. Y., chairman of A.M.A.'s committee on alcoholism.

In the same article, Dr. Gunnar Gundersen, La Crosse, Wis., president of the A.M.A., said "the physician can restore the alcoholic's physical health, calm him mentally, and at the same time help him to meet basic human problems."

The ultimate solution, he added, may have to come from the patient's religious counselor, spouse, employer or whatever source might hold the trump card in an individual case.

There is evidence already, the article continued, "that, while more effective alcoholism case-finding is bringing this illness out into the open, consumption of alcoholic beverages on a per capita basis is dropping sharply.

"A recent Gallup poll showed that since 1945 there has been a decline of 18 per cent in the ratio of alcoholic beverage consumers to total adult population."

With a promise of less drinking, more effective approaches to those who drink excessively, and better understanding of the disease through research, the outlook for the future is hopeful.

RESIDENT LIVE BIRTHS, INFANT DEATHS, AND MATERNAL DEATHS WITH RATES: UNITED STATES AND EACH STATE, 1957

(Infant mortality rates per 1,000 live births.
Maternal mortality rates per 10,000 live births.)

Area	Live Births		Infant Deaths		Maternal Deaths	
	Number		Number	Rate	Number	Rate
United States.....	4,254,784		112,094	26.3	1,746	4.1
Alabama.....	84,052		2,696	32.1	69	8.2
Arizona.....	31,986		1,142	35.7	8	2.5
Arkansas.....	41,732		1,095	26.2	38	9.1
California.....	350,904		8,720	24.9	126	3.6
Colorado.....	41,342		1,250	30.2	13	3.1
Connecticut.....	57,076		1,236	21.7	10	1.8
Delaware.....	11,656		273	23.4	4	3.4
Dist. of Columbia.....	20,440		725	35.5	8	3.9
Florida.....	104,098		3,323	31.9	62	6.0
Georgia.....	102,054		3,099	30.4	83	8.1
Idaho.....	16,764		415	24.8	6	3.6
Illinois.....	238,734		6,080	25.5	62	2.6
Indiana.....	115,892		2,754	23.8	37	3.2
Iowa.....	63,634		1,330	20.9	13	2.0
Kansas.....	53,148		1,190	22.4	13	2.4
Kentucky.....	74,752		2,142	28.7	30	4.0
Louisiana.....	90,826		2,937	32.3	57	6.3
Maine.....	22,976		576	25.1	8	3.5
Maryland.....	75,082		2,111	28.1	20	2.7
Massachusetts.....	115,384		2,621	22.7	16	1.4
Michigan.....	208,808		5,099	24.4	76	3.6
Minnesota.....	85,950		1,980	23.0	17	2.0
Mississippi.....	60,876		2,253	37.0	75	12.3
Missouri.....	97,208		2,433	25.0	30	3.1
Montana.....	18,192		456	25.1	6	3.3
Nebraska.....	33,142		791	23.9	12	3.6
Nevada.....	6,710		207	30.8	1	1.5
New Hampshire.....	13,170		348	26.4	6	4.6
New Jersey.....	130,360		3,153	24.2	40	3.1
New Mexico.....	27,934		1,100	39.4	14	5.0
New York.....	359,240		8,578	23.9	158	4.4
North Carolina.....	113,440		3,460	30.5	84	7.4
North Dakota.....	16,328		419	25.7	4	2.4
Ohio.....	243,578		6,024	24.7	70	2.9
Oklahoma.....	51,262		1,310	25.6	22	4.3
Oregon.....	37,788		826	21.9	8	2.1
Pennsylvania.....	255,204		6,250	24.5	74	2.9
Rhode Island.....	18,990		457	24.1	5	2.6
South Carolina.....	63,378		2,003	31.6	60	9.5
South Dakota.....	17,716		460	26.0	6	3.4
Tennessee.....	84,076		2,451	29.2	47	5.6
Texas.....	250,790		7,398	29.5	116	4.6
Utah.....	25,970		562	21.6	8	3.1
Vermont.....	9,500		241	25.4	4	4.2
Virginia.....	97,286		2,940	30.2	48	4.9
Washington.....	66,118		1,602	24.2	18	2.7
West Virginia.....	44,200		1,210	27.4	15	3.4
Wisconsin.....	96,818		2,150	22.2	37	3.8
Wyoming.....	8,220		218	26.5	2	2.4

Source: National Office of Vital Statistics

PHSS: April 1, 1959

RESIDENT LIVE BIRTHS, INFANT DEATHS, AND MATERNAL DEATHS WITH RATES: NORTH CAROLINA AND EACH COUNTY, 1958*

(Infant mortality rates per 1,000 live births.
Maternal mortality rates per 10,000 live births.)

Area	Live Births			Infant Deaths		Maternal Deaths		Area	Live Births			Infant Deaths		Maternal Deaths	
	Number	Number	Rate	Number	Rate	Number	Rate		Number	Number	Rate	Number	Rate	Number	Rate
North Carolina	120,620	4,028	33.4	68	5.6										
Alamance.....	2,227	67	30.1	—	—			Johnston.....	1,445	46	31.8	1	6.9		
Alexander.....	335	13	38.8	—	—			Jones.....	316	14	44.3	—	—		
Alleghany.....	182	5	27.5	—	—			Lee.....	741	33	44.5	—	—		
Anson.....	680	27	39.7	3	44.1			Lenoir.....	1,599	60	37.5	1	6.3		
Ashe.....	427	16	37.5	—	—			Lincoln.....	693	25	36.1	—	—		
Avery.....	273	8	29.3	—	—			McDowell.....	666	12	18.0	—	—		
Beaufort.....	926	29	31.3	1	10.8			Macon.....	334	7	21.0	—	—		
Bertie.....	692	22	31.8	1	14.5			Madison.....	347	14	40.3	1	28.8		
Bladen.....	808	31	38.4	2	24.8			Martin.....	752	25	33.2	—	—		
Brunswick.....	551	31	56.3	1	18.1			Mecklenburg.....	7,219	248	34.4	2	2.8		
Buncombe.....	2,853	84	29.4	—	—			Mitchell.....	361	10	27.7	—	—		
Burke.....	1,147	35	30.5	—	—			Montgomery.....	499	18	36.1	1	20.0		
Cabarrus.....	1,681	43	25.6	—	—			Moore.....	1,001	26	26.0	—	—		
Caldwell.....	1,293	34	26.3	2	15.5			Nash.....	1,604	70	43.6	1	6.2		
Camden.....	161	7	43.5	—	—			New Hanover.....	1,918	79	41.2	1	5.2		
Carteret.....	729	20	27.4	—	—			Northampton.....	729	41	56.2	—	—		
Caswell.....	517	13	25.1	—	—			Onslow.....	3,510	90	25.6	1	2.8		
Catawba.....	1,879	49	26.1	1	5.3			Orange.....	1,151	35	30.4	1	8.7		
Chatham.....	622	27	43.4	—	—			Pamlico.....	257	10	38.9	—	—		
Cherokee.....	358	4	11.2	—	—			Pasquotank.....	767	25	32.6	—	—		
Chowan.....	439	13	29.6	—	—			Pender.....	498	13	26.1	—	—		
Clay.....	116	4	34.5	—	—			Perquimans.....	255	9	35.3	—	—		
Cleveland.....	1,630	46	28.2	—	—			Person.....	706	30	42.5	1	14.2		
Columbus.....	1,553	63	40.6	2	12.0			Pitt.....	1,977	77	38.9	1	5.1		
Craven.....	2,153	72	33.4	—	—			Polk.....	235	6	25.5	—	—		
Cumberland.....	5,164	135	26.1	2	3.9			Randolph.....	1,461	31	21.2	—	—		
Currituck.....	169	11	65.1	—	—			Richmond.....	1,057	30	28.4	2	18.9		
Dare.....	103	2	19.4	—	—			Robeson.....	2,983	147	49.3	1	3.4		
Davidson.....	1,825	43	23.6	—	—			Rockingham.....	1,764	38	21.5	1	5.7		
Davie.....	381	7	18.4	—	—			Rowan.....	1,851	48	25.9	—	—		
Duplin.....	1,103	33	29.9	—	—			Rutherford.....	959	30	31.3	—	—		
Durham.....	2,740	88	32.1	2	7.3			Sampson.....	1,244	58	46.6	1	8.0		
Edgecombe.....	1,616	63	39.0	1	6.2			Scotland.....	785	34	43.3	1	12.7		
Forsyth.....	4,808	126	26.2	2	4.2			Stanly.....	882	24	27.2	2	22.7		
Franklin.....	707	41	58.0	1	14.1			Stokes.....	492	11	22.4	—	—		
Gaston.....	3,153	93	29.5	2	6.3			Surry.....	1,185	32	27.0	—	—		
Gates.....	238	11	46.2	—	—			Swain.....	246	9	36.6	—	—		
Graham.....	162	2	12.3	—	—			Transylvania.....	400	11	27.5	—	—		
Granville.....	838	27	32.2	1	11.9			Tyrrell.....	126	2	15.9	—	—		
Greene.....	533	28	52.5	1	18.8			Union.....	1,145	36	31.4	2	17.5		
Guilford.....	6,505	213	32.7	—	—			Vance.....	846	32	37.8	1	11.8		
Halifax.....	1,805	82	45.4	—	—			Wake.....	4,271	154	36.1	5	11.7		
Harnett.....	1,201	54	45.0	4	33.3			Warren.....	570	22	38.6	—	—		
Haywood.....	929	29	31.2	2	21.5			Washington.....	392	19	48.5	—	—		
Henderson.....	791	33	41.7	2	25.3			Watauga.....	412	21	51.0	—	—		
Hertford.....	633	15	23.7	—	—			Wayne.....	2,300	107	46.5	2	8.7		
Hoke.....	514	21	40.9	—	—			Wilkes.....	1,099	38	34.6	—	—		
Hyde.....	126	4	31.7	—	—			Wilson.....	1,579	67	42.4	5	31.7		
Iredell.....	1,552	47	30.3	—	—			Yadkin.....	485	10	20.6	—	—		
Jackson.....	374	9	24.1	—	—			Yancey.....	304	14	46.1	—	—		

*Data are provisional and include receipts through January 1959 for 1958 occurrences.

Source: Public Health Statistics Section

April 1, 1959

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The

Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

June, 1959

No. 6



PRESBYTERIAN HOSPITAL
CHARLOTTE, NORTH CAROLINA

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Physicians And Progress In The Public Health*

By Gerald E. McDaniel, M.D., M.P.H., Columbia, S. C.

Continued Progress has been made during the past thirty years in improving the public health of most peoples of the world and particularly of the United States. Life expectancy at birth has been increased, bacterial diseases have been brought under control, and once incurable mental and physical diseases are now being cured. Since the founding of medicine, physicians have tirelessly devoted their time and knowledge to not only treating the ills of their individual patients

but unselfishly to the improvement of the health of all mankind. Physicians have from the beginning of the profession accepted the responsibility and assumed the leadership for the control of epidemic disease. Dr. William Budd in his investigation of typhoid fever gave us an example of the kind of unselfish investigative work that has been done by many physicians in private practice. There are many others as well or better known for specific contributions to the improvement of the health of man, but many more physicians in public and private practice have made contributions to healthier communities without widespread recognition or none at all.

*Chairman's Address, read before the Section on Public Health, Southern Medical Association, Fifty-Second Annual Meeting, New Orleans, La., November 3-6, 1958

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Every active, conscientious physician, in whatever field of medicine he chose to practice, has contributed knowingly or unknowingly something to the improvement of the public health. No small part of this contribution has been in the field of services rendered other than the control of the particular disease or epidemic. Assurances artfully given by the physicians that relieved the people of anxiety, fear, or even panic created a wholesome and healthier community. We now recognize that, in addition to control of disease, wholesome use of leisure through recreation, hobbies, or companionable associations and activities in social groups, freedom from some of the environmental irritations of daily living such as noise, pestiferous insects, and others contribute to a better total public health.

Physicians of the past, because of their knowledge of the whole but smaller community and their personal interest in it, were accepted as leaders not only in medical affairs but equally as well in civic and public affairs. Not all of this leadership was unsuspectingly thrust upon them by their communities. The physician was healer, comforter, and adviser to his patients in problems other than medical.

During the past quarter century, there seems to have been increasing criticism of physicians individually and collectively. Some of the reasons advanced for this criticism and seeming lack of healthy trust in the individual physician and the medical profession have been several.

(1) Increasingly there has been a lack of time devoted to a satisfying discussion with the patient of his total problem by the physician responsible for his care. This applies equally well to the public health physician, whose patient is the community of his jurisdiction, as to the private practitioner and his individual patient. We have all gotten too busy to discuss with our patient his chief problem which often as not is not the

symptom of which he complains. Patients are anxious for their physicians to discuss their problems with them for a little while. We, as individual physicians, who are responsible for the care of the patients and community, must somehow find enough time to talk more with our patients about their total problems, if we are to keep their confidence and support which we need to maintain our medical and patient freedoms as we now know them. We in public health must find the time to determine, evaluate and discuss with our communities their problems. We must not be found limiting our activities to minor or disappearing problems.

(2) Another reason which may be cited for misunderstanding and criticism by the public results from the great increase in specialization in medicine that has become necessary because of the great advances in the science of medicine. The criticism that in the advances in the scientific fields we have lost some of the art of practice may be partly justifiable. In many instances the private patient is sent to several specialists without having his confusion altered by a timely explanation of reasons for such reference and of the reasonably anticipated results. The public health physician must be sufficiently informed to give his community patient a reason for certain actions or lack of action and to have some knowledge of what might be reasonably expected to result from such procedures. Noncommunication, equivocation or brusqueness with the community patient can be as disastrous as with an individual private patient. It is also just as important to each kind of patient that we give the information or instructions confidently, artfully, and timely. There have been instances in which the people of communities became unnecessarily alarmed, frightened, and even panicky because some private physicians and unfortunately some health officers failed to instill calmness during threatened epidemics of smallpox or, more recently, polio-

myelitis. This kind of situation was created by inadequate communication between the family physician specialist treating individual patients and the public health physician specialist treating the community. Good and frequent communication between these specialists can create a healthier, calmer atmosphere in the community and a healthier public opinion of the medical profession. The correct diagnosis of the disease in the individual patient is dependent upon the bringing together the information of all the specialists and its summary by the patient's physician. There must be co-operation and consultation. Even so, the correct diagnosis of the ills of the community is dependent upon the cooperation and consultation of all the physicians treating parts of it and a summary by the public health physician.

(3) A third reason for criticism is a result of the tremendous increase in the past two decades of many volunteer lay organizations working in medical fields. Even in those organizations that have good medical membership and advice, this physician relationship and leadership is lost in the predominantly lay sponsorship emphasized in the various news media. Even in organized public health agencies there is a tendency for more and more lay administration and direction. This is not in the best interests of the best public health nor of the medical profession. The public loses its awareness of the need for qualified, trained medical leadership and direction. We must see that all boards and organizations working in health and medical fields have good, vocal, recognized medical representation in responsible positions on them.

The phenomenal increase in the knowledge of medicine, the growing urbanization of populations, and the more rapid and widespread areas of travel have so expanded the field of medicine that specialization was a normal result. No one person can encompass the entire field and know all the problems. Among the specialties

that developed was that of preventive medicine or public health. The physician-practitioner of public health treats the community population as his patient. His consultants are the physicians who treat individual patients in the community. He must assemble and evaluate the reports of his consultants for a correct diagnosis of his patient's ills and for proper treatment. He cannot do this if his consultants are not wholly cooperative, and will, thus, have only a partial picture of the community's problem. This development of the public health specialty has not been smooth, but patience, sincerity of purpose, and wholesome understanding have led to general acceptance of the public health specialty. This development and acceptance has been due in great part to the leadership and support of the private practitioners of medicine and of patient pioneers in the public health field. This cooperation of physicians and generally a patient public has brought under control almost all of the bacterial diseases. These diseases were the major public health problems of twenty and twenty-five years ago. Throughout this period public health has had medical supervision and direction. We as physicians must exhibit sufficient interest and leadership to maintain medical supervision and direction of medical and public health activities. Truly the medical profession has accomplished much.

We need to be alert to keep this leadership. We must be alert to the problems of the continuing present, or better still anticipate them before they are problems, to exert leadership in planning for their care and control. Changing of the population composition and environments produce changing public health problems. The jet-age makes world disease problems potentially local community ones. The increasing age of the population of this country will present an increasingly large problem of long-term illness in the older population. These long-term illnesses involving a large

number of the population, and other problems of the aging, will be a major problem to be considered by all of us. It is already evident that if we physicians do not take the initiative in developing and guiding the programs someone else will. Already there are lay organizations, some without medical representation, planning programs for the solution of these problems. The very nature of the long-term illness in the old person will demand the cooperation of many groups for successful care. There is a place for any lay group or organization to render valuable service in the care of the chronically ill and in the old age group, but the medical care of these patients, including the kind and method of hospitalization, should be directed by medically trained people. Most lay organizations want and will welcome competent medical leadership. It is therefore an urgent responsibility of the medical profession to see that competent, vocal, and active medical advice and leadership is provided.

The practice of preventive medicine and public health, as a specialty of medicine, completes and qualifies the field of medicine in this country to care as adequately for these medical needs of the future as capably as for the problems of acute communicable disease in the past. Private practitioners of medicine and the public health physician, with the facilities at his command, can provide the kind of therapeutic and preventive care this older population needs. We must first determine the extent of the medical problems of the aged and direct the programs for their care and control.

The problems of long-term illness of older people and the problems of the aging will demand closer cooperation not only between physicians of all specialties, including general practice and public health, but between the medical profession and various lay groups who can provide some of the needed social, recreational and economic essentials for complete care. We physicians must direct the medical phases of the total care of the patient whether it be in the hospital, in the nursing home, or in the home care program.

The public health physician can perform his role in this total health problem of the future by using the personnel associated with him in improving and supervising care in nursing homes and in directing a good home nursing care program. This kind of cooperation and planning between all physicians of the local communities will keep medical care in the care and direction of the medical profession. There must not be unnecessary delay in providing leadership and direction.

Acknowledgements

This paper is written from my observations of nearly thirty years as a public health officer in one state. This work as County Health Officer and as State Epidemiologist brought me into association with many physicians in private and public health practice of medicine in consultations for diagnosis and for control of many cases and epidemics of communicable diseases. From each and all I learned much, and to all I am forever grateful.

Notes and Comment

JET TRAVEL PRESENTS INFECTION HAZARD

Rapid air travel presents a danger—and a challenge—in the control of infectious diseases, according to Dr. Wesley W. Spink, an expert in the field.

Writing in the *Journal of the Am-*

erican Medical Association, Dr. Spink of the University of Minnesota Medical School said "in this era of missiles and jet travel a medical problem in Madras, India, today, may be that of New York City's tomorrow."

For example, a German physician traveled from India to Ceylon, where

he thought that he had contracted influenza. He continued on by plane to Switzerland and then by train to Heidelberg, Germany. Shortly thereafter, the physician and at least 13 other persons with whom he had been in contact were given diagnoses of smallpox.

Such spread of a disease has occurred many times in more restricted geographical areas, but "the availability of rapid means of travel could readily expand the area," he said.

One of the major problems presented by a possible spread of a disease to a new part of the world is that many physicians are unfamiliar with diseases not prevalent in their own areas.

During World War II, a special training program in tropical diseases was set up for American physicians so they would recognize and know how to treat diseases acquired by servicemen in the tropics.

Dr. Spink suggested that a similar program be set up as a regular post-graduate course for physicians. In such a program, which might be worked out through such agencies as the U. S. Public Health Service and the World Health Organization, physicians would be sent to different areas in the world to see diseases under natural conditions.

He noted that many diseases are well controlled in certain areas, such as smallpox in the United States. However, "it is well to recall that in all of the history of medicine no infectious disease has ever been treated out of existence," he said. Even plague still exists in the world, although it rarely breaks out, mainly because of public health measures.

The great advances in the control and elimination of infectious diseases have taken place only because of the accumulation of precise data about the life habits of specific infective agents, he said. Armed with accurate information, men have made efforts to block the channels through which disease is spread.

But to continue to do this, men must be trained to understand all in-

fectious diseases, he concluded.

AIR CONDITIONING IS HEALTHY

Air conditioning—custom tailored climate—means much more than mere cooling.

Properly used, air conditioning implies year-round modification of humidity, air currents and dust content of air as well as combating cold or heat, said an article in *Today's Health*, a publication of the American Medical Association.

According to the author, J. C. Furnas, Lebanon, N. J., air conditioning "rescues hay fever sufferers from airborne pollen and keeps heart patients at recommended even, moderate temperatures."

It can, he said, "be distinctly 'good for' the healthiest . . . because it takes much of the curse off the bullying heat and smothering humidity of our temper-gnawing, energy-sapping summers."

In order to derive the full benefits from air conditioners, people must learn to keep windows and doors shut, the author said.

The air conditioner is designed on the assumption that it alone will be processing your indoor climate. "It needs no amateur help," he said.

Most people agree that air conditioning is helpful, but ideas of temperature comfort can also vary among individuals. "Humidity itself rules out any possibility of settling on an 'ideal temperature' for human beings," the author said.

A housewife who feels all right at 75 degrees with 50 per cent humidity will swelter if it goes to 80 per cent. Drop the humidity to 20 per cent and she will be chilled.

This is a sound reason for keeping the doors and windows shut. The author said "letting in untreated outside air destroys the humidity-temperature balance on which comfort depends"

Considerable debate still exists over the proper setting of the thermostat, the author said. In warmer parts of the country air-conditioned families often go for the fixed-level theory,

ignoring outdoor conditions.

The author recommends, however, a 15 degree spread between the inside and outside temperature. "Thanks to the humidity angle," he said, "this 15 degree spread gets practically all the potential comfort out of home air conditioning."

With an efficient air conditioner keeping interior humidity at the proper 40-50 per cent level, even 80 degree temperature indoors to match 95 degrees outdoors will not be at all oppressive.

"It's not the heat; it's the humidity" may be trite," he said, "but it's the backbone of sound air conditioning."

COLD VACCINE PREDICTED WITHIN 24 MONTHS

A vaccine which will prevent from 60 to 70 per cent of all common colds will probably be available within the next 24 months, an expert in cold research has predicted.

"I realize that I have stuck my neck out," Dr. Thomas G. Ward, professor of virology at Notre Dame University, South Bend, Ind., said. However, he believes that a vaccine can be developed against "an acceptable proportion of the common colds."

In an interview, reported in Today's Health, published by the American Medical Association, Dr. Ward said he does not believe that common colds will be wiped out, even with an adequate vaccine.

"People are not going to take the vaccine, just as they are not taking polio vaccine . . .," he said. "People are people and we have great difficulty in selling preventive medicine. The prevention of disease is not as glamorous or as consuming to the individual as his actual illness."

From 75 to 80 per cent of common colds are caused by a group of viruses or a group of ordinary bacteria of the streptococcus type, Dr. Ward said.

Viruses are protein substances that cannot be seen, even through a microscope. While related to the one-celled bacteria, viruses are not considered to

be living bodies in themselves; they have the peculiar ability to live only in the presence of growing material. In addition to colds, they cause such diseases as measles, chickenpox, poliomyelitis and rabies. Vaccines composed of dead or "tamed" viruses may be injected into the body and cause it to develop resistance against invasions by the viruses.

Dr. Ward defined a common cold as one wherein the individual has a runny nose two days in succession. This is the nasal type cold which causes the lining of the nose to become reddened and inflamed. No fever is associated with it, and it is the kind that may be spread easily to other people.

There is no drug now on the market that could be termed effective against common cold viruses. Colds caused by bacteria may respond to antibiotics, and allergy-caused colds may respond to antihistamines.

Until an effective cold vaccine is developed, about the only way to keep from catching cold, according to Dr. Ward, is to "follow the usual health measures such as keeping warm and dry, and well-fed. If possible stay away from those who have colds."

ANTIBIOTICS SHOULD NOT BE USED IN COSMETICS

The inclusion of antibiotics in cosmetics is opposed in a report of the American Medical Association.

There is no evidence that "constant degerming" of the skin, such as would be presumed to occur with the use of antibiotics in cosmetics, is "necessarily always or even frequently desirable," according to the report appearing in the A.M.A. Journal.

The report was written by two New York dermatologists, Drs. Carl T. Nelson and Marion B. Sulzberger, for the A.M.A. Committee on Cosmetics.

Antibiotics are now being used in deodorants to help kill bacteria and thus reduce odor. They have also been suggested for inclusion in face creams and in blemish lotions, according to Veronica L. Conley, Ph.D., committee secretary.

In a note, Dr. Conley said: "The persistent trend toward the incorporation of pharmacologically active ingredients into cosmetics has caused growing concern among the medical profession . . . Medical experience provides considerable evidence of the health implications in the widespread, prolonged or indiscriminate use of antibiotics."

There is essential agreement, the report said, that antibiotics generally useful in the treatment of systemic infections should not be used in cosmetics. However, it has been proposed that certain other antibiotics (bactracin, neomycin, polymyxin and tyrothricin) be permitted in cosmetic preparations.

Even these, which are rarely used other than on the skin, carry certain dangers, according to the report. Some persons may be sensitive to the drugs and develop allergic reactions from continued contact. In addition, little information is available about the possibly harmful effects of the various antibiotics after absorption through the skin.

The possibility of bacteria's becoming resistant to the effects of the antibiotics may be increased through prolonged use of the drugs. This would mean that, when the drugs must be used to treat a disease caused by a resistant strain of bacteria, they would be ineffective.

In conclusion, the report said: "Except for the deodorant action of such agents in reducing axillary odors, their incorporation in cosmetics has not been proved to be of specific value, and their widespread use in cosmetics could well represent an increased risk to general public health as well as to certain hypersensitive individuals."

FASHIONABLE CLOTHING DESIGNED FOR PHYSICALLY HANDICAPPED

Physically handicapped persons can now buy clothing specially designed to combine fashion and function.

The clothing was designed at the Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, after consulta-

tion with Mrs. Helen Cookman, a fashion designer.

Physically handicapped persons have specific clothing problems, Dr. Howard A. Rusk and Eugene J. Taylor of the New York University-Bellevue Medical Center explained in the Journal of the American Medical Association.

They need clothing designed to permit greater ease in dressing with their limited muscle strength or range of motion. The fabric must also be strong enough to withstand the undue wear caused by friction from crutches or wheelchairs and by the strenuous activity required by handicapped persons in dressing. In addition, the clothes should be fashionable enough to permit greater social acceptance and increased self-esteem by the disabled persons, Dr. Rusk said.

Of 17 items designed so far, six are now on the market. These include slacks for men and coat-dresses and suit-dresses for women. The clothes for women are especially designed to counteract the destructive effect of crutch-walking.

Fabrics are mostly wash-and-wear nylons and Dacrons, stitched with the strongest threads available, but care has been taken that the fibres do not generate too much electrostatic charge and will not cause wheel chair problems by sticking instead of sliding. Emphasis was also given to the use of closures which can be easily managed.

The clothing is being produced by a new, non-profit organization, Clothing Research, Inc. It is conducting a market test through direct mail selling. If the market test indicates a sufficient market for the clothing, additional garments will be produced and will be distributed through normal commercial channels, Dr. Rusk said.

Specific information about the clothing may be obtained from Clothing Research, Inc., 307 W. 38th St., New York 1.

BOOKLET HAS AID FOR STUTTERERS

No child need stutter!

That is the contention of Wendell

Johnson, Ph.D., professor of speech pathology and psychology at the University of Iowa.

Although, according to Dr. Johnson, much of the "folk thinking" and many of the ancient theories about stuttering still persist, each new laboratory and clinical study indicates that this age-old speech problem is destined to be erased.

"Much has been done in recent years to increase our knowledge and understanding of the problem of stuttering. Research is continuing and the future becomes ever brighter with each passing month," the noted speech authority, himself a former stutterer, says in his new booklet "Toward Understanding Stuttering" just published by the National Society for Crippled Children and Adults.

Written especially for parents, the 40-page publication is both a revealing study of more than 25 years of extensive and intensive research in stuttering problems and a guide to help parents make the wonder of speech a source of strength, joy and wisdom for their children. The basic facts and findings he presents may, he believes, "with good fortune . . . all but eliminate" the problems of stuttering.

"We speak of 'the stutterer' as though stuttering were a problem only for, and of, the speaker. It involves his listeners, too," Dr. Johnson points out. "In fact, when a speaker who is said to be a stutterer speaks where no one else can hear him he seldom, or never, does what we call stuttering. If we are to understand the problem we must give attention not only to the speaker but to his listeners as well.

"When the speaker is a young child his most important listeners, by far, are his parents. And they should be in no hurry to judge the child's speech by adult standards. It's more important that the child like to talk than it is that he speak fluently, or with correct grammar or distinct articulation of sounds and proper pronunciation of words. These are refinements about which the wise parent will be patient and, as refinements, they will be very likely to develop if only the

child is encouraged to talk and to find in speech deep satisfactions and pleasures and substantial rewards."

"Toward Understanding Stuttering" is the third in the parents' series published by the National Society, popularly known as the Easter Seal Society. Copies of the booklet may be obtained by writing the society at 2023 West Ogden Avenue, Chicago 12. Price is 25 cents each.

EMOTIONAL PROBLEMS CAUSE MANY COLLEGE DROP-OUTS

The "spoon feeding" of children has been blamed for the high rate of drop-outs from college.

Four out of 10 students in college today will not stay long enough to be graduated, according to an article in *Today's Health*, published by the American Medical Association.

The root of the high drop-out rate lies in psychological troubles, most educators think. The students simply are not mature enough to cope with college and its demands.

They are the product of an "era of spoon feeding," the article said. When they get to college and find that everything is not done for them, they crack up and drop out.

There are, of course, other reasons for leaving college, including financial difficulties, marriage and inability to meet the necessary intellectual standards. However, the emotional problems are great.

The article offered some suggestions to parents and students for handling these college emotional problems.

Parents can help their children remain in college by leaving the children alone; by seeing that they have information about college and career selections, but letting them make their own choice; by refraining from imposing their parental interests on the children; by seeing that children have a previous living-away-from home experience; by not over stressing the need for high grades, and by letting the children earn part of their own expenses.

For students who want to avoid

"joining the army of drop-outs," the article offered the following suggestions:

—Before going to college, try to get a realistic picture of what to expect.

—Recognize that college will present stiff academic competition.

—From the start, budget study time.

—If you are shy, get a roommate. Make yourself available for social contacts, but don't overemphasize the social side of college.

—Try to think through what you want to get out of college, then make sure your work has a direct relationship to your career.

—Get plenty of rest, and realize that minds do not work better when stimulated by anything stronger than coffee or "Coke".

—Give the college a chance to provide helpful guidance for adjustment. Know what resources the college offers and take advantage of them.

In conclusion, the article noted: "The sound, sensible approach to college life, by students as well as their parents, can do much to cut down drop-out—the deplorable waste of America's most competent manpower."

The article was written by Theodore Irwin, Scarsdale, N. Y.

HIGHWAY ACCIDENT FORMULA

Formula for a foulup on the highway:

Take several youthful space cadets. Turn them loose in the confines of a car. Add a few ingredients like big, inflated balloons, drippy ice cream cones and back-seat tussles.

Brother, you're asking for an accident!

Who'd let a child run rampant in a car—unless he was snug in a harness, battered down by a seat belt or taught to sit tight and behave himself when in the car?

Lots of folks, according to the National Safety Council.

"A car-orbiting child," it says, "is a threat to himself and others. He can

(1) crack his head, (2) harass the driver, (3) cause frayed nerves all around."

How serious is the child-in-a-car problem?

Many children get hurt in cars each year because they don't sit still. Countless thousands of parents get hot under the collar when they should keep cool.

"Teach a child what 'no' means—and stick by your guns," the Council advises moms and dads. And teach children such rules as these:

1. Don't put hands or arms out windows.

2. Don't climb on seats. Sit squarely in the seat.

3. Keep hands off door handles, the gear shift lever, ignition key and lights. Never grab the wheel.

4. No lollipops on a stick that might injure an eye or a mouth in event of a sudden stop or unexpected tumble.

Some ways to make your youngsters happy on a trip:

1. Keep them occupied with games and toys—but nothing demanding a lot of physical action.

2. Stop several times a day to play with your children. Rest stops provide a good chance for cooped-up kids to let off stored-up steam.

3. Encourage the small fry to take naps.

4. Don't travel too many hours at a stretch. Drivers get tired, too.

"On long trips," the Council suggests, "a bag of surprises opened at intervals helps keep interest up—and your children contented."

SENATOR GREEN GIVES LONGEVITY RULES

The way a man uses his years—not the way he counts them—tells how old he is, according to 91-year-old Senator Theodore F. Green of Rhode Island.

In an interview reported in *Today's Health*, published by the American Medical Association, Senator Green explained how he has managed to remain active and "young at 91."

The senator, the oldest man ever to serve in Congress, said his secret of longevity is mainly due to moderation and exercise.

"Too many people give up and quit just as they are entering their prime," he said. "I never rest but I do relax. I don't get worried. I don't get excited. I laugh a lot.

"A good way to keep fit is to remain active. I try to do a variety of things—that's what keeps you interested."

His advice for people wanting to live a long life is: "Keep a clear conscience, practice moderation, enjoy your life and work, keep your weight down, and take regular exercise."

By exercise he means some daily exercise, not "lounging through the winter and then going athletic on a summer vacation or during a violent week end." Senator Green walks nearly everywhere he goes.

Commenting on other persons who fail to follow the common sense rules of healthful living, Senator Green said: "If they're not careful, they won't live to be venerable!"

SNACKS MUST BE CONSIDERED AS PART OF WHOLE DIET

"Extracurricular eating" is fine, provided it contributes good food to the daily diet and is not a means of adding unneeded calories, according to an American Medical Association publication.

More than 80 per cent of American families snack—mainly between lunch and dinner and in the evening, it was pointed out in an article in *Today's Health*.

Whether a person should snack or not depends on his own situation, the article said. Some children during periods of rapid growth and adults who are trying to gain weight need more food than is usually eaten in three meals. But for other persons snacks may be simply a way of adding unneeded pounds.

Whatever a person's snack problem, nutritionists agree that snacks should count nutritionally and should be considered as part of the daily diet. When

snacks are of limited nutritional quality they are likely to replace foods that provide the nutrients essential to good health. The appetite may be satisfied before nutritional needs are met.

A person watching his weight should also watch his snacks. If he knows he is going to a party where he will eat, he should reduce the amount of food eaten at a meal, the article said.

It offered some suggestions for nutritious snacks for weight watchers. These might include sliced carrots, cucumbers or radishes topped with salt, pepper, lemon, herbs or spices; or crisp wafers spread with cottage cheese topped with paprika and sweet pickle relish.

For those wanting to gain weight, the article recommended homemade pizza (split English muffins; add pizza cheese, tomatoes, oil, spices, anchovies, sausage, onions, mushrooms; put in oven and bake), and tuna, crab meat or chicken livers spread on toast quarters or biscuits (bake, sprinkle with cheese and serve).

APATHY LISTED AS CAUSE OF INADEQUATE DIETS

Apathy is one of the major causes of inadequate diets, a New York researcher said recently.

L. A. Maynard, Ph.D., Ithaca, pointed out that while sufficient food supplies are available, surveys continue to show that a substantial number of individuals fail to consume diets which meet the recommended dietary allowances.

"Such surveys," he reported in the *Journal of the American Medical Association*, "indicate a widespread lack of appreciation of the importance of an adequate diet and a lack of knowledge of how to select it."

In his report, Dr. Maynard said a great variety of food supplies are available and that an adequate diet can be obtained by selecting foods from each of the four basic food groups. These include:

—The milk group which includes cheese and ice cream. He recommends

that children have three to four cups of milk daily; teen-agers, four or more cups; adults, two or more, and expectant mothers, four or more cups.

—The meat group including two or more servings of beef, veal, pork, lamb, poultry, fish, or eggs. Dried beans, peas, and nuts may be used as alternates.

—The vegetable - fruit group from which four or more daily servings should be selected. These servings should include a dark green or deep yellow vegetable at least every other day, citrus fruit or other fruits containing vitamin C, and vegetables including potatoes.

—The bread-cereals group from which four or more daily servings are suggested. This group includes whole grain, enriched or restored cereal, and bread.

Dr. Maynard added that a good diet can be rounded out by more of the same foods or others, such as table fats, cereal products, and sugar, to provide the additional calories and nutrients needed.

"The food supply of the United States is so large and provides such rich and varied sources of the nutrients needed that it is readily possible for everyone to have an adequate diet from foods available to him," he concluded.

JOBS MAY BENEFIT HEART PATIENTS

Suitable work may be more beneficial than rest and retirement for persons with severe heart disease, a Brooklyn, N. Y., physician said.

Dr. Alvin Slipyan studied 19 persons who would normally be considered to be unemployable but who were successfully working in industrial and clerical jobs.

The physical condition of some of them actually improved after they started working.

Most industries refuse to hire cardiac patients because of the fear of absenteeism and compensation claims.

Among these 19 persons, the low absenteeism rate was remarkable, Dr. Slipyan said, and there were no compensation claims.

On the basis of his study, he suggested a possible change in the rule that persons with severe heart disease require constant rest and retirement from work.

Including in the study, reported in the Journal of the American Medical Association, were 10 persons who had heart attacks (three with two attacks), seven with rheumatic heart disease, and two with hypertensive heart disease.

They were employed by Abilities, Inc., an Albertson, L. I., N. Y., company employing only disabled persons.

Among the patients with postmyocardial infarction, the age spread was from 26 to 63, with eight over the age of 50. Their jobs included office and plant bench work. The jobs all require the effort of walking, but none heavy labor. Some of these people had been unemployed for as long as four and a half years before taking jobs at Abilities, Inc.

Of these patients, five showed no change in physical condition after employment, three showed definite improvement, and one had increased attacks of pain but showed no increase in disability. One man died of a cerebral embolism, apparently related to an experience in which he was trapped in his car for more than an hour in a snowstorm.

Among the rheumatic heart disease group, five showed no change in their condition after starting work and two improved. Their jobs included office work as a messenger; plant inspector; bench work, and packaging.

One of the hypertensive heart disease employees showed no change in status and one gradually improved.

Dr. Slipyan noted that his report "may be considered unique in that never in the history of private industry has such a deliberate policy of employing the 'unemployable' cardiac patients been seen."

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The Health Bulletin

Published by the NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

July, 1959

No. 7



NURSES' HOME, ANNIE PENN MEMORIAL HOSPITAL
REIDSVILLE, NORTH CAROLINA

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Practice of Medicine Is As Ancient As Civilization

By J. W. R. Norton, M. D.,
 State Health Director

(The accompanying article is reprinted from the special "North Carolina Story" edition of The News and Observer of Sunday, June 21.)

Men of medicine have ministered to humanity since the dawn of history. Although we know of advances which have been made down through the years, medicine has become generally divided into two classes—curative and preventive. General practitioners are chiefly concerned with curative medicine, while preventive medicine is administered by public health officials, often in cooperation with general practitioners.

In 1877, the Medical Society of the State of North Carolina, realizing the need for public health services, was instrumental in the creation of the State Board of Health which at first consisted of the entire State Medical Society acting through a committee.

Budget Comparison

The first annual appropriation was \$100 to be used in issuing a few pamphlets. During this current fiscal year the sum of \$11,235,000 was budgeted

for all public health activities, both State and local, in North Carolina.

Prior to North Carolina's action in organizing the State Board of Health, public health came into being in and around some of our larger ports, like Boston for example, mainly for the purpose of enforcing quarantine laws and keeping contagious diseases out of America by refusing to let suspicious characters land.

Three Medical Colleges

Before going into a description of the services now being rendered by public health officials, let us consider a setting of general health facilities which now exist. There are at present in North Carolina three four-year medical colleges, Duke, Bowman-Gray and the University of North Carolina Medical School.

According to the latest figures, there are 30 hospitals which train nurses, also four collegiate nursing schools, these being located at Duke in Durham, the University of North Carolina at Chapel Hill, the A&T College in Greensboro and Teacher's College in Winston-Salem, the latter two being for the training of Negro nurses.

During recent years, new hospitals, health centers, general hospital projects and nurses residences have sprung up all over the State, being made possible by Hill-Burton, State and local funds. The North Carolina Medical Care Commission reports 82 public health centers in North Carolina, completed or under construction, including two in Guilford, two in Nash and two in Harnett.

North Carolina has the second largest number of Hill-Burton public health centers in the country, the total being 82 as compared with 88 in Georgia. There have been and are 294 projects in hospitals, including 142 general hospital projects in 80 hospitals, two tuberculosis hospital projects, seven mental health hospital projects, five chronic hospital projects, five rehabilitation projects, eight diagnostic treatment centers and 43 nurses residences.

As to the administration of public health, that now covers all of North

Carolina's one hundred counties.

Hundreds of public health workers are employed in local health departments, including 281 clerks and others, 210 sanitarians, ten dental workers, and 463 public health nurses. More progress has been made in the past ten years in bringing contagious diseases under control than ever before.

Tremendous gains have been made in the reduction of smallpox, typhoid fever, malaria, diphtheria, and tuberculosis. All of these, except tuberculosis, have been practically eradicated. At last count, 3,207,771 chest x-ray pictures had been made in the Board of Health's mass program throughout the State.

Already, the use of Salk vaccine has greatly reduced the number of paralytic poliomyelitis cases. This year, North Carolina gained the distinction of being the first State in the union to pass the law requiring vaccination against poliomyelitis of children from two months to six years of age. No child can be admitted to any school for the first time now who has not been vaccinated against this disease. Free vaccine is available to the indigent only and then the decision rests with the local Health Director.

The passage of the recent radiation law strengthens the part that public health will play in protecting our people against radiation.

Our Veterinary Public Health Section has been most effective in the promotion of a State-wide rabies control program involving the adoption of local ordinances requiring the registration and vaccination of all dogs and the destruction of strays.

The State Board of Health also is sponsoring an educational program designed to reduce the number of accidents in our homes and on our farms.

North Carolina now is the most autonomous State in the Union in the administration of its public health affairs. Local units are not subject to strict dictation from Raleigh, but are free to carry on their affairs at the best interest of the various counties and sections involved.

The State Board of Health is actively participating in the fight against heart diseases. Twice a year three-day refresher courses are given in cardiovascular diseases at Bowman-Gray for approximately thirty general practitioners. Twice a year, at Duke, courses are given in the fundamentals of electrocardiography for approximately 40 general practitioners. The program of work and responsibilities in sanitary engineering and sanitation have changed to keep pace with the times and the new modes of life. Our sanitation programs which were primarily concerned with rural areas are now focusing more attention on urban and congested suburban areas and the so-called fringe areas.

Now that we have emphasized the fact that public health is where the people are, namely in the various counties of the State, let us consider how public health is administered through the local health departments.

The local health department is the official health agency of the community. It is an organization of specially trained people serving the public health needs of the community, preventing illness, and prolonging life of citizens against disease and promoting general health and well-being.

The preventive services of the health department may be as ample as the understanding and support of the local government and public opinion will permit, but all health departments include some of the following basic services: sanitation, vital statistics, maternal and child health, communicable and other disease control, laboratory service and health education.

The local health director is a physician licensed to practice medicine in the State of North Carolina. He has post-graduate training or experience in public health work and preventive medicine. He devotes full time to his duties as public health physician and as the administrator of the health department. Working with his staff, he plans and directs the work of the health department.

Public Health Nurse.

The public health nurse is a graduate registered nurse with additional preparation in public health. She works in the homes, the schools, in clinics, and with community groups. She teaches the family how to provide nursing care for the sick and how to maintain good health.

The sanitarian is trained to protect the health of the people through supervision and consultation on environmental sanitation including: food, water and milk supplies, sanitary sewage disposal, and rodent and insect control.

The local health educator is trained in education, sociology and science with a graduate degree in public health education. The health educator works with other members of the health department and staff and the community in developing a health education program to meet the public health problems. Some health departments have sanitary engineers, laboratory workers, nutritionists, public health dentists, veterinarians, statisticians, venereal disease investigators, and other personnel.

The private physician and the health department work together to control contagious diseases in the community. The local health department holds clinics to give immunization against whooping cough, diphtheria, smallpox and typhoid fever and other special immunizations.

When a serious contagious disease occurs in a family, the public health nurse, at the request of the health director or a private physician will visit the home. The nurse will teach the family how to carry out the doctor's instructions.

The local health department maintains a register of all known cases of tuberculosis and their contacts and holds chest x-ray clinics for studying these cases, and contacts and the public at large. Persons with tuberculosis are referred to their private physicians and, when necessary, arrangements are made for sanatorium care.

The department makes diagnoses of venereal disease cases, and provides

adequate penicillin treatment where indicated. Each case of venereal disease is carefully interviewed for source of infection and for new contacts.

Food Inspection.

Through education of foodhandlers and regular inspection by the sanitarian, safe methods of preparing, serving, and handling food in restaurants, in meat markets, in abattoirs, and other food handling establishments are maintained. A grade sign, indicating the relative degree of sanitation, is posted in each food handling establishment. Every citizen should look for this sign when entering a food handling establishment.

Regular inspections are made of dairy farms and pasteurization plants to assure production and processing of clean, safe milk. The sanitarian will help families plan a safe water supply and sanitary sewage disposal. Upon request, samples of water from approved private water supplies will be tested.

The health department will suggest ways to control rats, flies, and other health menaces. It will provide information to individuals and communities on safe garbage disposal. Inspections are made to assure that lunchrooms, water supplies, sewage disposal, playgrounds, lighting, and other school facilities meet health standards. To insure clean, safe recreation areas, tourist homes and summer camps are inspected regularly.

Infant Care.

When the baby is born public health nurses will visit the home to teach mothers infant care. To aid in saving the lives of premature babies, special services, including transportation and hospitalization, are provided for them through the health department.

Many health departments hold well-baby clinics to provide medical supervision for infants, to give immunizations and to offer information to parents on the growth and development of the infant and pre-school child. Pre-school clinics are held in cooperation with the medical and dental societies, and Parent-Teacher Associations to

give booster immunizations and examine children for physical defects. The children are referred to their private physicians for medical care when indicated.

Keeping the public informed about health is an important part of the public health program. Every member of the health department staff does health education work as he or she carries on public health duties. Many health departments employ trained public health educators who work full-time on developing a health education program with the community.

The health educator and other public health workers will help communities organize to work on health programs. The development of health councils, neighborhood groups, adult study groups, and community health projects are all a part of a well rounded public health program.

The health educator and other public health workers also can assist schools in developing units of study on health, aid schools with special health projects, work on programs of in-service training for teachers and provide materials and films for school groups. Assistance is given to clubs, voluntary and official agencies.

Keeping the official record of births and deaths is one of the basic jobs of many health departments. Birth records are important for entrance to school, for employment, and on other occasions when date of births must be established. Death certificates are necessary in the settlement of insurance and legal matters.

Certain diseases are reported by private physicians. This information enables the health department to plan immediate action to prevent communicable diseases from spreading and to chart the progress of disease control.

Laboratory Service.

The public health program, just as modern medical care, must have the services of accurate laboratories. The public health laboratory services for the community may be in the local health department or the health de-

partment may use the services of the State Board of Health. The State Board of Health maintains a central laboratory at Raleigh, where various determinations are made and which prepares and/or distributes immunizing agents against preventable and controllable diseases. This laboratory works in cooperation with physicians throughout the State, and with accredited laboratories. The work of the central laboratory has greatly expanded during recent years and it now ranks among the best public health laboratories in the United States.

Cancer detection and diagnostic clinics are jointly sponsored by local and State health departments, local and state medical societies, and the local and state divisions of the American Cancer Society. The clinics are open to North Carolina citizens thirty-five years of age or over and citizens under thirty-five years of age who have symptoms of cancer. Ask your family physician or your local health department for information on individual examination for the meeting dates of the clinic nearest your community.

Guidance Clinics.

Mental hygiene and child guidance clinics are open to citizens desiring guidance in emotional and mental hygiene problems. Your local health department can give you information about the clinic services nearest you.

The State Board of Health maintains a free film service to provide films, filmstrips and slides on health sub-

jects for the use by health departments, clubs, schools, and other organizations. Films may be requested through the local health department or directly from the State Board of Health.

Consultation services of trained nutritionists and dietitians are available to schools, institutions, and community groups from the State Board of Health upon the request of the local health department.

The Oral Hygiene Division of the State Board of Health provides dental inspections for children under twelve years of age. Dental care is given to children under twelve years of age who cannot meet the cost of dental care. This service is made available periodically upon assignment from the Oral Hygiene Division.

The School Health Coordinating Service, supported jointly by the North Carolina State Board of Health and the North Carolina Department of Public Instruction, provides services to school and health department personnel through: consultative services, field visits, in-service education, production, and use of certain materials and resources in areas of health services, health instruction, school environment and physical education. This service may be requested through the local health director or the local superintendent of schools.

The consultant services of all divisions of the State Board of Health are available upon request to your local health department.

Notes and Comment

SNAKE BITE DANGEROUS, TREATMENT OUTLINED

Victims of poisonous snake bites may increase in number and geographical distribution as camping and outdoor activities increase in popularity, two Philadelphia physicians have warned.

Most cases of snake bite occur in the southern and southwestern states where there are more snakes and the conditions favor greater exposure.

However, poisonous snakes are found in all states except Maine and Alaska.

Writing in the *Journal of the American Medical Association*, Drs. Thomas McCreary and Harold Wurzel told physicians that they must all be prepared to treat poisonous snake bites.

At least 35 species and subspecies of poisonous snakes are known in the United States. Most of these are pit vipers or Crotalidae, which include

the many species of rattlers, the copperhead, and the cottonmouth or water moccasin. The coral snake, found in the southern states, is related to the cobra and is not a pit viper.

The Crotalidae are generally nocturnal in their habits and are dangerous on land or water. They are not aggressive and strike usually only for food or in self-defense.

A number of factors affect the seriousness of a snake bite, the doctors said. Very young and very old persons are more susceptible to serious aftermath. A bite is less dangerous on an extremity than one near a vital organ.

The earlier treatment is started, the more effective it will be, they noted. Since most bites occur far from a doctor's office, the victim himself must apply the first aid. If he remains calm, he should have little trouble, they said.

The first step is usually the application of a tourniquet. The objective is to close the superficial lymphatics to lessen the spread of the venom.

Incision and suction at the bite is used by many persons to remove large quantities of venom. If it is used, the incision need be made only to the depth of the subcutaneous tissues. As swelling extends beyond the site, short incisions may be made at the edge of the advancing swelling and suction applied over the incisions.

While many persons have survived without the use of antivenin, it should be given by a physician whenever there is any reason to believe that the bite is serious. The amount given may vary—a small person requires a large dose because the venom, distributed in a small volume, is less dilute.

The authors noted that snake bite is always a medical emergency and every victim should be hospitalized. The effects of snake bite may include blood coagulation difficulties, internal hemorrhage, vomiting, shock and muscular twitching. Generally the patient is thought to be out of danger if he survives the first 48 hours.

SCHOOL CHILDREN SHOULD WEAR IDENTIFICATION TAGS

Identification tags for school children have been suggested by a physician who cared for many who were burned in the Chicago school fire last December.

Identification of badly burned or injured children is often difficult because they rarely carry wallets or other means of identification, according to Dr. James E. Segraves, director of the disaster plan at St. Anne's Hospital, Chicago.

More than 50 children were taken to St. Anne's Hospital from the Our Lady of Angels School fire. Of these, 10 were either dead on arrival or died shortly thereafter.

"Identity was often incomplete," Dr. Segraves said, "and even parents were unable to identify for sure some of the most severely burned children."

Identification tags would alleviate this difficulty, he said in a report on the hospital's disaster medical plan in the Journal of the American Medical Association.

Dr. Segraves also recommended as a result of his hospital's experience that personnel in each city police district be familiar with the hospitals in their district and know just how many casualties each could care for at one time.

St. Anne's Hospital has long had a plan for meeting major medical emergencies. On the whole, the plan worked well after the school fire, Dr. Segraves said.

He offered the following suggestions for disaster planning by hospitals:

—The plan must be simple and familiar to all hospital personnel. Frequent practice sessions are necessary.

—Mass disaster situations must be postulated and the first 24 hours of treatment must be outlined in detail long before any disaster occurs.

—Stockpiles, based on the outlined 24 hours of treatment, must be kept available.

—The team approach is the only logical one if chaos is to be prevented, and the team must be under the direction of one man.

NEW BLOOD FACTOR NAMING SYSTEM OUTLINED

The "chaos" of many names for the same blood clotting factor is being overcome through the cooperative efforts of leading blood experts from 16 countries.

A common problem in science is a confusion of terms—one thing may have as many as a dozen different names. This makes it difficult for scientists to communicate.

The area of blood clotting factors has been especially confused, but the International Committee on Nomenclature of Blood Clotting Factors, headed by Dr. Irving S. Wright, New York, has begun to straighten out the difficulties. Its members are the very men who discovered most of the factors being systemized.

A Roman numerical system was chosen for identification because it can be readily understood by all persons, the committee said in a report in the *Journal of the American Medical Association*.

Even before the committee began its work in 1954, Roman numerals were used to identify at least four factors that play a role in the clotting of blood. These are factor I or fibrinogen; factor II or prothrombin; factor III or thromboplastin, and factor IV, calcium.

In the report, the committee lists four more factors—V, VII, VIII, and IX (eq. no VI). It will later publish extensive reports outlining the criteria on which it based its recommendation that these factors be recognized and assigned international symbols.

Factors V and VII each have 11 other names and play roles in various types of hemorrhagic diseases. A deficiency of factor VIII produces classic hemophilia, in which the blood does not coagulate. Factor IX deficiency produces Christmas disease, which resembles classic hemophilia.

A number of additional plasma and serum factors have been described by various workers who believe the factors play a role in clotting of the blood. They are now under study by the com-

mittee, and if the evidence indicates that the claims are valid, they will be assigned a Roman numeral.

The committee urged all educators, editors, and authors to adopt the new system in their day-to-day efforts.

COLD FOOT MAY INDICATE "SILENT" HEART ATTACK

Coldness of one foot suddenly occurring after an operation may be a sign of a "silent" heart attack according to a New Jersey physician.

The coldness is the result of a circulatory block in the leg, caused by a blood clot carried from the heart, Dr. Nathan Frank, Jersey City, said in the *Journal of the American Medical Association*.

He believes that some sudden post-operative deaths attributed to pulmonary embolization (blood clots originating in the artery leading to the lungs and moving to the heart) may actually be the result of silent myocardial infarctions.

Heart attacks after surgery for some other ailment may pass unnoticed, Dr. Frank said, because the pain is thought to be associated with the surgery.

Whenever a person suddenly develops a coldness of one foot 4 to 21 days after surgery, silent myocardial infarction should be considered as a cause, he said.

In reporting three cases of cold foot following surgery, Dr. Frank said the syndrome had not been previously described.

It is "of great clinical significance," he said, because, if unrecognized, it may cause death, especially with the trend to early ambulation after surgery.

He recommended that patients be questioned daily about the presence of pain and coldness in the foot and calf. In addition, all patients should be given an electrocardiographic examination before surgery to determine the presence of old myocardial infarctions. If they are present, precautions against the development of embolism can then

be taken, he said.

Dr. Frank is associated with the Jersey City Medical Center and Seton Hall College of Medicine and Dentistry.

NEW RADIOACTIVE TEST SHOWS LIVER DAMAGE

A new test using radioactive dye to measure the function of the liver was described in the *Journal of the American Medical Association*.

The test, which is much simpler than older tests, opens many new possibilities in the study of liver disease and damage, according to Drs. Robert A. Nordyke and William H. Bland, University of California Medical Center, Los Angeles.

Among the conditions in which the test is used are cirrhosis, hepatitis, alcoholism and common bile duct obstructions.

Radioactive rose bengal is injected into the blood stream. The speed with which it disappears from the blood indicates the degree of liver damage or disease. The liver plays a role in removing the dye from the blood. Its disappearance is measured by a standard radiation counting device held against the head behind the ear.

The head was chosen as the site of measurement because it contains a rich and stable blood supply which is distant from the large and changing concentrations in the abdomen, the doctors said.

Older tests using rose bengal and other substances necessitated the withdrawal of blood from the veins for checking the color of the blood. The value of these tests is restricted, the doctors said, to liver disease without jaundice because of difficulty in reading color changes and because of possible injury to an already damaged liver by large doses of dye.

The new test circumvents these problems, the doctors said. Since detection of changing concentrations of dye depends on levels of radioactivity rather than color, valid results are ex-

tended to all types of liver damage despite the presence of jaundice. In addition, the minute quantities of both radioactivity and dye allow multiple tests to be done without harm.

ISOLATION OF NEWBORN INFANTS WITH THRUSH UNNECESSARY

Isolation of newborn infants with thrush, a mild fungal infection of the mouth and throat, is unnecessary, according to four New York researchers.

Most city health regulations require the removal of infected infants from the regular hospital nursery to an isolated area. This is expensive, complicated and unnecessary, the researchers wrote in the *Journal of the American Medical Association*.

Soft white patches appear in the mouth and throat in thrush. They are caused by the fungus *Candida albicans*, which also causes other human infections, including a vaginal infection during pregnancy.

Thrush has commonly been believed to be an air borne infection; however, the fungus has not been isolated from nursery and hospital air or from soil and air in general, the authors said.

The most common source of infant infection is maternal vaginal infection, the authors said. Newborn infants may harbor *Candida albicans* in the mouth and intestine for five to six days before the disease becomes apparent and the patients are removed to the isolation nursery; thus unsuspected foci of infection are always present in a nursery.

A study of the prevalence and spread of thrush among more than 1,600 infants in the nursery at Maimonides Hospital indicated that isolation had no effect on the prevalence of spread of the infection among infants.

They concluded that isolation does not diminish the incidence of the disease among infants and that the expense of isolation is unnecessary.

The authors are Philip J. Kozinn, M.D.; Harry Wiener, M.D.; Clare L. Taschdjian, B.S.; and James J. Burchall, BS., Brooklyn.

FAMILY DOCTOR HELPS TREAT ADOLESCENT DELINQUENCY

Many parents and adolescents visiting doctors about physical ailments may really be seeking help in understanding the adolescents' behavior, two University of Wisconsin doctors said recently.

Writing in the *Journal of the American Medical Association*, Seymour L. Halleck, M.D., and Marvin Hersko, Ph.D., said the family physician is in an excellent position to help delinquent adolescents.

Requests for help may come from the adolescent delinquent even before he is in serious trouble, they said.

"Many adolescents are concerned with their deviant behavior, become guilty about it and look for someone to talk to. They hope to find a neutral but responsible adult who is not as emotionally involved in the situation as their parents and who is willing to try to understand," they said.

The adolescent delinquent is characterized by angry feelings, impulsivity, self-centeredness and many other physical and psychological symptoms. Much of the delinquent's behavior can be understood in terms of his immaturity, his disturbed relationship with his parents and his unconscious conflicts about feelings of aggression and sexuality.

The family physician may sometimes help an adolescent delinquent overcome his difficulties by the "loan" of strength and a moral code, they said.

Adolescents have the ability to develop close relationships with adults other than their parents. This phenomenon can be used by the physician to help the delinquent adolescent.

"These relationships, in a very impressive manner, are often accompanied by a rapid disappearance of delinquent behavior," the doctors said. "In these cases, the child discovers an 'ideal', socially responsible figure who is also trustworthy and understanding.

"It seems almost as if the adolescent temporarily 'borrows' the strength and moral code of the adult and is better

able to control himself. The physician is in a good position to become the adult friend or confidant of the adolescent."

The physician also plays other roles in the treatment of delinquency. In some cases, he must help explain to the parents why a child must be sent to a correctional institution or why the child needs psychiatric help.

WEIGHT-REDUCING AGENT TERMED INEFFECTIVE

A widely used appetite suppressant has been found to be ineffective in helping obese persons, a group of eastern scientists reported recently.

The suppressant—phenylpropanolamine—is a common ingredient of weight-reducing drugs which are offered to the public without prescriptions. It has been estimated that about 100 million dollars is spent annually for such drugs, the scientists said.

Their report appears in the *Journal of the American Medical Association*.

Headed by Dr. Joseph F. Fazekas, Washington, D. C., the group undertook the study to determine the merits of the non-prescription drug as compared with dextro amphetamine, a prescription drug with known appetite suppressing qualities.

The authors said that any effective weight-reducing program must be administered by a physician who understands the psychological factors which are encountered by persons undergoing treatment.

To control these psychological factors, the scientists selected 80 obese mentally deficient subjects for their study. The subjects were physically normal and had been residents of the institution for a number of years. Their body weight had been recorded monthly since admission.

The authors explained that the subjects had never been under any dietary restriction and their daily food intake consisted of a well balanced diet known to contain about 3,000 calories which was well above their energy requirements.

The 80 subjects were divided into

four nearly equal groups, and the blind procedure was employed where neither the recipient nor the administrator knew what agent was being given.

The subjects were given one of the drugs under investigation three times a day, one hour before meals, for a period of six weeks. To make certain of their ingestion by the subjects, the drugs were given by cottage supervisors.

According to the authors, "Phenylpropanolamine, when administered in recommended doses, and even in twice the supposedly therapeutic doses, failed to effect a statistically significant reduction in weight.

"The administration of dextro amphetamine . . . was associated with a statistically significant reduction of weight. The weight loss apparently results primarily from a reduction of food intake due to a diminution of appetite."

They continued, "The results of the present investigation lend support to the concept that phenylpropanolamine does not exert a marked central nervous effect, at least insofar as appetite reduction is concerned."

The scientists concluded that in view of the many psychological and physiological factors involved, as well as the recognized increased incidence of certain diseases in the obese population, weight reduction should be supervised by physicians, particularly when drugs are used.

TEST OUTLINED TO DISCOVER METABOLISM DEFICIENCY

A new method has been found to detect during infancy a metabolism deficiency which is known to be a contributing factor in certain mental illnesses, a Boston physician has revealed.

According to Dr. Gerhard Nellhaus, the new procedure involves the use of a tiny paper strip to test urine samples of infants during the first months of life. Such tests will indicate the presence of a metabolism deficiency

known as phenylketonuria.

The defect is a hereditary deficiency of an essential amino acid—the chemical which builds protein and is vital to life. If not discovered and corrected through diet, the deficiency could lead to mental illness, the physician warned.

In his report, which appears in the Journal of the American Medical Association, Dr. Nellhaus said that with the institution of proper diet the convulsive, behavioral, and intellectual disturbances of the disorder will be improved.

The new test is done with material consisting of a stiff strip of cellulose impregnated with various chemicals. The doctor said that the strip is dipped into the urine sample or saturated by pressing against a wet sheet or diaper. Color reaction occurs within a few seconds and a final reading can be made in 30 seconds.

In the past, Dr. Nellhaus said, testing was done by using a ferric chloride solution. The new method is more convenient as well as practical since the color reaction is more positive and will not fade as rapidly as will the solution.

He also noted that the strip method is beneficial in testing infants who are receiving drugs used in the treatment of rheumatic fever or rheumatoid arthritis.

Dr. Nellhaus is chief resident, children's medical service, Massachusetts General Hospital.

COURTESY RULES FOR BOATERS

While there are nearly 40 million boaters in the United States, they are facing keen competition for space in the water from swimmers, fishermen, skin divers, and other water enthusiasts.

According to an article in Today's Health, a publication of the American Medical Association, more people than ever before will visit the water this summer in search of fun and relaxation.

Because of the competition for space

in which to enjoy the water, it becomes the obligation of the boater to display courtesy and proper respect for others, the article said.

The boaters were told, "No matter if you're at the helm of a large yacht or cruiser, a kayak, sailboat, dinghy, or motorboat, you'll be judged on how you display your manners afloat. Don't be rude. Show good seamanship.

"Learn the fundamentals of how to handle your boat. Certainly no owner should have his craft in the water without knowing what to do in every situation that may lead to danger."

The article also offered other suggestions to the boating population. They include:

- Don't overload the boat.

- Passengers should stay inside the boat and not ride on the bow.

- Don't stand up or change seats while the boat is underway.

- Avoid sailing too close to swimmers, fishermen, and water skiers.

- Don't jump from a moving boat.

- Pass through anchorages at minimum speed only.

In concluding, the article offered the boaters the following advice: "If you'll show the proper respect for others, you'll get the same treatment in return."

EYE EXAMINATION MAY PREVENT STROKE

By checking the blood pressure of the eyes, one cause of stroke can be diagnosed even before the stroke occurs, according to a group of Boston physicians.

A common cause of paralytic stroke is the clogging of the internal carotid artery, which leads through the neck to the brain.

If an obstruction, such as a blood clot, is found in the artery early enough, it can be removed by surgery or the use of clot-dissolving drugs, thus preventing a stroke.

Internal carotid artery insufficiency can be diagnosed by checking the blood pressure of the eyes. It is measured by a technique, called ophthalmodyna-

mometry, which is described in the *Journal of the American Medical Association*.

The authors are Drs. J. Lawton Smith and David G. Cogan, Harvard University Medical School and Massachusetts Eye and Ear Infirmary, and Dr. Irving H. Zieper, Massachusetts General Hospital.

In the procedure, the eyes are first dilated and anesthetized. Pressure is applied to the eyeballs and the blood pulsations are observed through the ophthalmoscope, the instrument commonly used in eye examinations.

The technique is rapid and safe, and is becoming increasingly important with the recent advent of more effective treatment of carotid artery insufficiency, the doctors noted.

In addition to its use as a diagnostic procedure, the technique can be used to check the effectiveness of treatment for carotid artery obstructions.

It should be used as a diagnostic procedure whenever patients exhibit such early signs of carotid artery obstruction as transient partial blindness; dizziness or nausea on changing posture, or weakness of the limbs on one side of the body.

WORLD MEDICAL EDUCATION MEETING SET FOR AUGUST

Nearly 2,000 persons from all over the world will gather in Chicago Aug. 29-Sept. 4 for the second World Conference on Medical Education.

The conference, sponsored by the World Medical Association, will be attended by medical educators from 50 countries. Other sponsoring groups are the World Health Organization, the Council for International Organizations of Medical Sciences and the International Association of Universities.

With the theme, "Medicine—A Lifelong Study," the conference is aimed at providing a common ground for the free exchange of scientific information and experiences between countries, according to Dr. Louis H. Bauer, New York, secretary-general of the World Medical Association.

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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

August, 1959

No. 8

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Notes and Comment

By Editor

Dr. A. H. Elliot, Director of the Personal Health Division of the North Carolina State Board of Health, retired as of July 1, 1959. Dr. Elliot has had a long, useful and honorable career in public health. He was born in Manchester, North Carolina, September 29, 1890. He received the Bachelor of Arts degree from Davidson College in 1914 and began the study of medicine at the University of North Carolina in September, 1915. At that time the University could give only the first two years of medicine, which Dr. Elliot completed in June, 1917. He remembers well all members of the faculty while he was a student at Chapel Hill

and holds them in high regard. In September, 1917, he entered Jefferson Medical School, receiving his Doctor of Medicine degree in 1919. After a short career as a private practitioner, Dr. Elliot joined the staff of the New Hanover County Health Department, where he remained for twenty-seven years and five months, holding the position of County Health Officer from 1931 until he joined the staff of the State Board of Health early in 1951, as Director of the Division of Personal Health, succeeding the late Dr. George M. Cooper.

Dr. Elliot's responsibilities included our Cancer Control Program, Crippled

Children Section, Heart Disease Section, Maternal and Child Health Section and the Nutrition Section. Each and every one of these programs has contributed much to the well-being of the State. Thousands of people in North Carolina are now living and well who would probably have died of cancer had it not been for Dr. Elliot's diligent attention to the details of this program. Other thousands of children who were crippled are now able to walk, run and participate in activities without handicap. It is more difficult to evaluate the Heart Disease Program, but those of us who are familiar with it know that many of those with heart disease have had their condition more promptly and accurately diagnosed and treated because of his administration of this program. The treatment of those with congenital heart disease he gave special attention. The Maternal Health Program has been definitely helpful by assisting women who are bringing forth new life and has contributed to a reduction of maternal deaths. The Child Health Program has promoted many well-baby clinics and contributed much to the State in a healthier child population. The nutrition work has been outstanding and has taught many of our people the value of foods in maintaining health.

After some thirty-seven years of service in the cause of public health, none of us doubt that Dr. Elliot has earned a respite from the work of the day and is entitled to spend his remaining years enjoying some of his hobbies a little bit more completely than he has been able to do in the past. In addition to his love of people, he has strong ties with the soil, the sunshine and fresh air. He has endeavored to give a college education to dogs that they might be able to better locate quail. Among the plant life, he probably places roses on a little higher pedestal than others. He has bought a farm, cleared lands, placed drainage tile on it and bought a tractor which he intends to drive himself as he turns new land into cultivation.

Dr. Elliot has friends and admirers from one end of the State to the other. Without fanfare, he has worked diligently to promote the health of the people in North Carolina. He is modest—almost to the extreme—a gentle, kindly man, with a sense of duty and tenacity of purpose. Those of us who know him consider that he is an honorable Christian gentleman.

HONOR FOR DR. BULLA

(From Raleigh Times, August 4, 1959)

Wake County has done well in the naming of its new Health Center to be built on the grounds of the new Wake Memorial Hospital.

The Center will be named for Dr. A. C. Bulla, who retired in recent years after 38 years as head of the Wake County Health Department. Dr. Bulla served all the people of this county well during those years, taking the lead in many movements which worked into programs designed to improve the health of the entire county.

Because of what he did for all the people of the county, it is entirely fitting that the people should place his name on this new County Health Center Building. For, from that building, there must come during the years ahead the dedicated health leadership such as that which Dr. Bulla gave to the county during his long service.

Dr. Bulla's 38 years of service included times when medicine and public health service took long strides. He was able to fit those strides into the best interests of this county, and his service will speak ably for itself even if his name never were attached to a building.

However, despite the fact that Dr. Bulla's service does speak so well for itself, it is good that his service is being honored in this tangible way.

SWIMMING POOL HAZARDS

Potential danger is lurking in the American back yard. The culprit is some 125,000 home swimming pools.

The danger is further aggravated by almost one million small, plastic play-pools which have been placed in the

nation's yards for small fry.

These facts were reported in *Today's Health*, a publication of the American Medical Association.

The article said that with tremendous numbers of children and adults swimming in their own or neighbors' back yards, more people than ever face the possibility of accident.

In the past 10 years the number of home swimming pools has increased from 2,500 to 125,000. A substantial increase is expected again this year.

In addition to drownings, doctors attribute many colds, ear-nose infections, skin troubles, and other diseases to home swimming where the basic principles of water sanitation are not observed.

To overcome many of the potential dangers, the article offers a number of suggestions. These include:

- Situate the pool near the house for convenience and to permit a view of the youngster's activities.

- Fence the pool or the whole area in which it is located; use a tamper-proof lock.

- Install an alarm that is set off by any sudden water displacement, such as occurs when a person splashes into a pool.

- Keep some sort of rescue device handy at all times. This may be a buoy or a pole.

- Make sure all pool users know how to swim.

- Run buoy lines across the pool, or build a divider or barrier, to define shallow and deep sections.

- Keep the pool clean. The swimming water should test as pure as tap water.

- Use a filter. It should be backwashed and flushed out every week.

- Add some form of chlorine to the water. Even with fresh water every day, diseases spread without chlorine.

- Water in splash pools and the smaller portables should be changed daily.

- See to it that some member of the family knows how to administer first aid, especially artificial respiration, and keep a first aid kit on hand near

the pool.

—Have the pool constructed by a builder who carries guaranteed equipment and who knows local health, building and plumbing ordinances.

In conclusion, the article said, "Now that a family swimming pool is becoming commonplace, it is time owners took precautions for their own safety and that of others. It is time, also, that guest users pay attention to whether or not the pool they mean to enjoy is properly equipped and supervised."

The article was written by Beatrice Schapper, an instructor at New York University, New York.

VEGETABLE OILS AID YOUNG ACNE SUFFERERS

Vegetable oils, commonly used in cooking and in salads, have come to the aid of diet-conscious teen-agers, who suffer from acne, the so-called "pimples" of adolescence.

Dr. W. R. Hubler, Corpus Christi, Texas, said that corn oil, used as a dietary supplement, prevented weight loss and fatigue often associated with low fat diets, a frequent acne treatment.

Working with three different groups of acne patients, Dr. Hubler reported in *Archives of Dermatology*, published by the American Medical Association, that corn oil was especially well tolerated and "made unpleasant low-fat diets more palatable."

"Unsaturated fatty acids in the form of corn oil," he said, "helped maintain weight and vigor in the average patient with acne."

He said that in one group there was a remarkable improvement in the skin and general condition of five patients. "None of the patients became worse when corn oil was added to their diets," he said.

In another group of 180 patients studied, he said that the acne condition "seemed to subside more rapidly than in patients treated prior to the use of corn oil." He said that, out of the 180 patients, he had to resort to x-ray treatment in only five in order

to produce clearing of their acne.

Even patients who suffered from acne in its worst form "improved with remarkable rapidity" with oral use of corn oil, he said in his article.

"All of my acne patients," Dr. Hubler stated, "now are allowed to use corn oil freely in their diets. Seventy-five patients have also used an unsaturated corn oil oleomargarine on their bread without apparent deleterious effects."

The Texas physician pointed out also that in his studies he found that ingestion of corn oil did not influence the normally low cholesterol levels of the teen-agers in any way.

LICENSE ALMOST 8,000 NEW DOCTORS DURING 1958

Almost 8,000 new physicians were licensed to practice medicine in the United States during 1958, it was reported recently by the American Medical Association's Council on Medical Education and Hospitals.

In its 57th annual report, which appears in the A.M.A. Journal, the council said that this marks the sixth consecutive year in which more than 7,000 new physicians were licensed.

Of the 7,809 new doctors, 6,155 were licensed through written examinations and 1,654 by endorsement of credentials.

During the period, there were approximately 3,700 physician deaths reported to the A.M.A., which reduces the over-all gain in the doctor population to 4,109.

In all, 15,240 licenses to practice medicine were issued in 1958. Written examinations accounted for 7,315 licenses and 7,925 were given through reciprocity and endorsement of credentials.

Of these, California issued the greatest number—2,205. New York was next with 1,584. Illinois, Ohio, Pennsylvania, and Texas each registered more than 500 doctors.

Nine states—Alaska, Delaware, Idaho, Montana, Nevada, North and South Dakota, Vermont, and Wyoming—issued fewer than 50 licenses dur-

ing the year. Among the territories and possessions, Puerto Rico licensed 107, Hawaii 44, Canal Zone 6, Guam and the Virgin Islands two each.

The council said there was an increase of 104 in the total number of licenses issued in 1958 over the previous year.

During the year there were 8,633 applicants for licensure by written examination. Of these 7,268 passed and 1,365 failed.

Among those examined were 5,692 graduates of approved medical schools in the United States, 168 from Canada, one graduate of an approved medical school in the U. S. which is no longer in operation, 2,567 from foreign schools, 25 graduates of unapproved medical schools in the U. S. which are no longer in existence, and 180 graduates of schools of osteopathy.

Twelve approved medical schools in the U. S. had no failures among their graduates who were examined. These include Stanford University, Chicago Medical School, University of Chicago, Boston University, Wayne State University, University of Mississippi, University of Missouri, University of Nebraska, Albany Medical College, University of Oregon, University of Pittsburgh, and the University of Utah.

The number of new licenses issued on the basis of geographical areas were: New England, 470; East North Central, 1,447; Middle Atlantic, 1,708; West North Central, 784; South Atlantic, 1,184; East South Central, 446; West South Central, 748; Mountain, 129; Pacific, 790, and territories and possessions, 103.

CHEST BLOW MAY START ARRESTED HEART

A fast blow on the chest may start a heart beating after it has suddenly stopped, an Oregon physician said recently.

Writing in the Journal of the American Medical Association, Dr. John T. Brandenburg, Medford, reported a case of cardiac arrest—in which the heart suddenly stops for no apparent reason—that was treated by three strong

blows on the left side of the chest.

The most frequently reported means of treating cardiac arrest is by opening the chest and massaging the heart. However, this must be done within four minutes. If the brain is without blood for more than four minutes, irreparable damage will occur.

Dr. Brandenburg's patient was a 64-year-old man who suffered a heart attack on the golf course. Shortly after he arrived at the hospital, he suddenly announced that he was "passing out."

No pulse could be felt and heart tones that had been clearly heard a minute before were absent. "A diagnosis of death due to cardiac arrest was made and thoughts of immediate thoracotomy were entertained," Dr. Brandenburg said.

However, he remembered that other doctors had advised chest blows, and he struck three blows with his clenched fist.

"Just after the third blow, to my delighted surprise," Dr. Brandenburg said, "a strong, but very irregular pulse was felt which soon became regular."

The total period of cardiac arrest was less than one minute. About 10 seconds after the return of his pulse, the patient regained consciousness with the comment, "I must have passed out."

The patient was treated routinely and recovered uneventfully.

Dr. Brandenburg recommended that a chest blow first be tried in cases of cardiac arrest. If there is not an immediate response, other methods should then be tried.

LOSS OF MEMORY AFFLICTS THOUSANDS EACH YEAR

If you ever encounter an amnesia victim, the best thing to do is to take him to the nearest hospital for immediate medical and psychiatric treatment.

This is the advice of Dr. Gloria Bentinck, clinical director of psychiatry at San Francisco Hospital, who treats 25 to 35 amnesia victims a year. She is

quoted in an article in *Today's Health*, published by the American Medical Association.

You should never try to treat a person with loss of memory yourself. The earlier he receives psychiatric care, the better, according to Dr. Bentinck.

The *Today's Health* article pointed out that amnesia is "more than a tired vehicle for grade B movies;" it is a frightening reality to thousands of persons each year.

Amnesia is the functional disturbance or loss of memory. It may be general, with complete loss of recall, or partial, with the forgetfulness of only certain ideas, names, words, events, people and their associations.

It has been described as the "shell shock of civil life," the article said. It is frequently encountered on the battlefield, where soldiers see more horrors than they can bear to remember.

Unfeigned amnesia of psychic origin is not commonplace. When it comes, the malady usually disappears in a few days or a week, even without treatment. Frequently such victims can be hypnotized and made to relive incidents from their pasts which may offer clues to their identity.

One of the most severe forms is known as fugue, which almost always reflects the presence of a deep-seated psychoneurosis or a constitutional inability to face reality, the article said. However, even normally sound and well-adjusted persons—if the stress is sudden or reaches an unbearable degree—can take refuge in temporary amnesia, which does not always indicate immaturity or emotional inadequacy, the article said.

Amnesia can appear following physical damage to the brain. It may be a symptom of organic disease, such as tumors or abscesses in the head. Asphyxia may cause temporary forgetfulness, as may sedatives, anesthetics, and alcohol. The degenerative changes of old age may also produce amnesia.

Each year some 20,000 amnesia cases are reported by police, hospitals, and public welfare agencies, the article said. Of these, more than half may be

faked or pretended. The term amnesia is used frequently to describe cases where persons, disappearing from their homes, later reappear and claim complete loss of memory for any events connected with the disappearance. It may be only an excuse or may be a way of finding relief from an unpleasant situation.

But whatever the cause, the amnesia victims needs medical and psychiatric aid.

The article was written by Stanley S. Jacobs, San Francisco.

FOOD ALLERGY MAY CAUSE URINARY SYMPTOMS

Food allergy may be the cause of persistent or recurring urinary symptoms when there is little or no disease in the urinary tract, three Chicago area physicians have noted.

Urinary tract allergy has been a recognized condition for nearly 40 years, but it is rarely reported and the diagnosis is often missed, they said in the *Journal of the American Medical Association*.

Frequently the condition may be misdiagnosed as cystitis (inflammation of the bladder), misplaced uterus, or pelvic inflammatory disease. Treatment of such conditions often gives partial relief, but the bladder symptoms usually continue.

The doctors believe that the possibility of allergy should be kept in mind in all obscure cases of cystitis, especially in persons who are otherwise allergic.

They reported one case of a woman who had exhibited urinary tract symptoms for 10 years. She also had a history of allergy. Skin tests indicated that she was sensitive to cabbage, peanuts, soybeans and filberts.

When avoiding these foods, her urinary symptoms disappeared. When she added them to her diet, the symptoms recurred.

The authors are Drs. Donald L. and Leon Unger, Chicago, and Francis Kubik, Michigan City, Ind.

THREE NEW DRUGS DESCRIBED IN A.M.A. JOURNAL

Three promising new drugs for the treatment of circulatory system diseases were described in the *Journal of the American Medical Association*.

Two of the drugs are used in the treatment of high blood pressure, while the other is an anticoagulant, used to dissolve or prevent blood clots.

The anticoagulant is a new coumarin derivative with the tradename Liquamar. It is 10 to 25 times more active than bishydroxycoumarin, the parent substance, according to Drs. Herman Gold and George W. Lilley, Chester, Pa.

The drug has been intensively studied in Europe, but little has been done with it in the United States, the doctors said.

They gave Liquamar to 111 patients suffering from acute myocardial infarction (a heart attack resulting from a blood clot), coronary insufficiency, acute phlebitis (inflammation of a vein), and various other circulatory ailments with which blood clots are associated.

Slower clotting times of the blood were noted within 42 hours in 77 per cent of the patients. Only 3.6 per cent showed abnormal bleeding. The doctors concluded that Liquamar produces a satisfactory slowing of blood clotting during short-term treatment of blood-clotting disease states.

Guanethidine, a "new, potent antihypertensive drug," was discussed by Drs. Irvine H. Page and Harriet P. Dustan, Cleveland Clinic. Its chemical structure and mechanisms of action differ from those of other agents used in the treatment of high blood pressure.

Experimental work in dogs indicated that guanethidine has a prolonged action. Treatment of 18 patients with high blood pressure showed that the drug has a rapid, but prolonged action, with mild diarrhea as the only side effect so far noted.

The other antihypertensive drug — hydrochlorothiazide — was described by Drs. Victor Vertes and Mervyn Sopher,

Mount Sinai Hospital, Cleveland.

— It is a relative of chlorothiazide, which was originally used as a diuretic (fluid-removing agent) and was then found to have blood pressure lowering properties.

The new drug was given to 10 patients with high blood pressure of unknown cause. It was effective in lowering the blood pressure of all patients, was well tolerated by all and produced no adverse side effects.

The action of the drug may result from its ability to produce sodium and chloride loss by the body, thus maintaining the patient on a "low-salt diet" in spite of general food intake, the doctors said. It has been shown that severe sodium restriction alone will lower blood pressure; however, it is impossible for a person to maintain a severe restriction outside the hospital. Such drugs as hydrochlorothiazide may help in this procedure.

ARCTIC CALLED PLACE TO LIVE, WORK

Summertime excursions across the Greenland ice cap may someday be no more dangerous than camping in the Sierras, an Army physician has predicted.

"Those who pioneered the West found the Sierras almost impenetrable, but today city dwellers, without batting an eyelash, spend happy and unconcerned weeks camping there," according to Capt. Alan D. Matzger.

Someday, the frozen regions of the world will be similarly treated. However, much must first be learned about the regions and their effect on man's health.

Captain Matzger, who is stationed at the U. S. Army Medical Research Laboratory, Ft. Knox, Ky., is spending the summer in Greenland, providing medical support for army engineers near Thule.

In a guest editorial in the Archives of Internal Medicine, published by the American Medical Association, Captain Matzger noted that many people are already living and working in the arctic regions. They are no different from

persons living in the United States, Australia or France, and their lives are no more dangerous.

"Just as we have learned that it is safer to cross an intersection when the light is green, they have their 'homely' safety precepts," Captain Matzger said.

They know that they cannot take needless chances; that they must be prepared to be isolated whenever they leave their communities. Following such rules becomes second nature.

Life in the frozen regions of the world is "most emphatically not a struggle for existence. Fruitful, meaningful important work has been done, is being done and will be done," he said.

The commercial possibilities are already being developed. Oil and uranium are being exploited in the Canadian subarctic. Sealing and codfishing industries have been established. Denmark has begun encouraging vacations in Greenland for its citizens. Other islands will become popular as vacation spots.

Before the areas can be fully developed, many questions of a fundamental nature must be answered, he said. They include: What are the dietary caloric requirements? What factors aggravate the production of frostbite? What is the effect of extreme cold on disease-causing organisms and on various diseases themselves?

How can the public health problems of water and sewage be solved? What happens when man does not have the normal day-night cycle of the temperate regions?

"There is some germ of the pioneer in most of us yet. Here is probably the last geographic frontier . . . Someone will take advantage of it; we will have to know about it," Captain Matzger concluded.

CHILD-FEEDING TIPS OFFERED IN TODAY'S HEALTH

Between the ages of one and three, children frequently turn from "eager eaters" to "negligent nibblers."

Although this is a fairly normal occurrence, many mothers become anxious

and upset, complicating the problem further.

Some tips on handling the situation were given by two Jacksonville, Fla., pediatricians, Drs. Cornelia M. and Hugh A. Carithers, in *Today's Health*, published by the American Medical Association.

"During the first year of life, babies usually triple their birth weight; during the second year, a gain of about five pounds is average," the doctors said. "Moreover, this relatively small weight gain, as compared to the first year, is never steady.

"For two or even three months at a time the weight may be stationary. During these lulls in growth, the appetite wanes and not only does the child need little food, he want little."

In addition, the youngster has reached the "negative stage," in which he is developing a will of his own.

In most cases, children will select what they need and want if left alone over a period of time. However, the mother must still provide the opportunity for the eating of a balanced diet.

The doctors suggested that the mother watch the trend of the child's appetite and serve his plate accordingly. This will cut down on waste and spare her nerves.

"SOCIAL DIET" FOR WEIGHT REDUCTION DESCRIBED

You can diet and your friends don't even have to know about it, a New York physician said recently.

A "social" diet—in which you eat normally with only a few modifications—was described by Dr. Milton Plotz in the *Journal of the American Medical Association*.

The modifications include the following:

—Not more than one slice of bread is to be eaten at any meal.

—At breakfast, cereal or one slice of toast—not both—may be eaten.

—Variety can be added to the lean meat, green vegetable routine at dinner by small portions of rice, noodles,

cracked wheat, or spaghetti, a small baked potato or portions of peas or lima beans.

—No gravies are to be added to food.

—Portions of everything should be reduced by about one-quarter, and "seconds" are not to be taken.

—Desserts should consist of one portion of fresh fruit, one ounce of any suitable cheese or a small slice of angel food cake.

On this routine, almost every determined patient will lose weight, Dr. Plotz said. In 100 successive patients, this routine resulted in a reduction of about 1,400 calories a day, he said, adding, "In many instances, the patient's friends—and sometimes his family—did not know that he was on a diet."

Dr. Plotz noted that dietary management of obesity "is evolving today in much the same way as that of diabetes some 20 years ago."

In the treatment of diabetes, the use of highly artificial diets with special preparation, with special or even exotically prepared dietetic foods, and food substitutes has been superseded by diets resembling normal diets as closely as possible.

A similar evolution is taking place in the management of obesity; artificial and complicated routines are being replaced by those which throw less burden on the patient's family and enable the patient to be a more acceptable member of society.

Diets cannot be prescribed for a short time, Dr. Plotz said. The dieter must realize that he will have to change his eating habits for a long time—perhaps for life.

The dieter at first may need the help of a drug in suppressing his appetite. When newer eating habits are well established, the supportive medicine can often be withdrawn.

Dr. Plotz is associated with the State University of New York, Medical Center at New York and Kings County and Goldwater Memorial Hospitals.

NEW TREATMENT OUTLINED FOR ESOPHAGEAL LYE BURNS

The serious consequences of swallowing lye can be prevented by the use of antibiotics and artificial hormones, two Delaware doctors have reported.

In fact, the treatment—combining tetracycline and prednisone—produced “uniformly good” results in 13 children who had swallowed lye-containing substances.

Lye, which burns the esophagus when swallowed, is the fifth leading cause of poisoning among those under 19 years of age, Drs. Charles L. Miller and Robert O. Y. Warren, Wilmington, said in the *Journal of the American Medical Association*.

After the lye is swallowed the esophagus becomes swollen and inflamed, which interferes with swallowing. This is followed by a period of normal swallowing until scar tissue gradually forms and obstructs the esophagus. Untreated, the esophagus completely closes and the patient dies of dehydration and starvation.

Until recently treatment consisted of surgery or the mechanical opening of the esophagus.

Now the daily oral doses of antibiotics and steroids help heal the burns and prevent the development of scar tissue.

The antibiotic is used to prevent infection in the burned area. Prednisone, a derivative of cortisone, speeds healing through its effect on the glandular system, which controls the body's reaction to such stresses as burns.

Feeding tubes were used for the first three days. After that the children ate soft diets for three weeks before returning to general diets.

None of the 13 children showed any narrowing of the esophagus after treatment. Follow-ups three months to three and a half years later also showed no subsequent narrowing.

In conclusion, the doctors said, “Despite the fact that the more severe consequences of lye ingestion can be averted with proper and early treatment in most cases, it is still a serious problem.

“The real answer lies in the field of prevention, especially through dissemination to the public of information about the dangers inherent in leaving poisonous substances within the reach of children.”

SIMPLE PAPER TEST SHOWS ANTIBIOTIC EFFECTIVENESS

A piece of paper that turns red under certain situations can now be used by doctors to decide what antibiotic to give for an infection.

The simple test involves the use of filter paper impregnated with a chemical that turns the paper red when bacteria grow on it. It is described in the *Journal of the American Medical Association*.

The test works this way: The filter paper is divided into several areas. Small quantities of individual antibiotics are placed in each division. The paper is sealed in a plastic bag and heated.

If an antibiotic inhibits the growth of the bacteria causing the infection, the paper remains white. But if an antibiotic does not work against the bacteria, the bacteria grow and the paper turns red.

The doctor then knows that the drug to give the patient is the one that keeps the paper white. The time required for the test depends on the number of organisms in the infectious material but it usually ranges from three to 12 hours.

According to the authors of the article—Wayne L. Ryan, Ph.D., Howard J. Igel, B. S., and Perry T. Williams, M. D., Omaha—the test is simple and rapid enough to be used in a doctor's office, where the majority of patients with infections are treated.

The bacteria-inhibiting abilities of antibiotics are regularly tested in hospital laboratories by the use of test tube and agar plate tests, but these are time consuming, complicated and expensive.

The authors feel that their test is easy to read, accurate, convenient, and relatively inexpensive.

The test was used in 100 cases of

frank or suspected bacterial infections in a normal office practice. Infections included boils, tonsillitis, abscesses, sinusitis, urinary tract infections and several others.

In 76 cases, antibiotic treatment was initiated on the basis of experience before the results of the sensitivity test were available. Treatment in the remaining 24 cases was begun after the tests were completed.

Of the 76 given immediate treatment, only 23 showed sufficient improvement within two days to warrant continuation of the first antibiotic. Fifty-three were changed to the drugs indicated by the test paper and began improving.

Of the 24 patients treated after the tests were run, 14 showed excellent to good results from the drugs indicated by the test paper. In the other 10, the test papers showed no bacterial growth.

STEPS LISTED FOR SAVING CHILD FROM PLASTIC SUFFOCATION

Three steps for saving a child who is endangered by a plastic bag were outlined recently by the American Medical Association.

In addition, it listed precautionary measures to prevent suffocation by plastic bags.

Since January at least 70 deaths, mainly in infants, have been attributed to plastic bag suffocation. Many children have died while playing with the bags or while the plastic film was being used as a make-shift pillowcase, mattress cover, or blanket protector.

The A.M.A. Committee on Toxicology, as part of its environmental health activities, outlined in the Journal the necessary steps to be taken if a child is ensnared by thin plastic material. They are:

1. If the child's breathing has stopped, the immediate need is to restore breathing. If possible, call a neighbor or send for help. Ask that a fire department inhalator squad be summoned and that the nearest hospital be alerted.

2. Try to resuscitate the child, using the mouth-to-mouth technique recom-

mended as the most effective method by the American Red Cross:

- Place the child on his back and extend the neck back. Put a towel or pillow under the shoulders so the head drops back.

- Lift and hold the lower jaw up to assure an open airway.

- Place the other hand on the stomach to prevent its overinflation.

- Place your mouth over the child's mouth and nose and blow in. After each breath, turn your head to the side, take another breath, and blow in again. Repeat 12 to 20 times a minute.

3. If the child is suffering labored breathing, is stunned or has difficulty in movement, rush him to the nearest hospital.

The committee also said, "Despite the sudden awareness of the potential danger to infants and children, the convenience and utility which plastic offers as a covering material suggests that it will continue to be used."

It is therefore imperative that parents take precautions. They are:

1. Do not give plastic bags or plastic film in any form to children to play with.

2. After plastic bags and wrappers have served their purpose, destroy them.

3. Do not use plastic film as slip covers for pillows and mattresses or as blanket protectors.

MYTHS ABOUT PREGNANCY EXPLAINED, REFUTED

If you eat ice cream, the baby inside of you will catch cold.

If you want a boy, eat peanuts and alkalies; for a girl, eat sweets and acids.

If you have heartburn, the baby will have lots of hair.

These are just some of the old wives' tales that plague pregnant women. They exist because occasionally coincidence seemingly makes one come true, according to an article in *Today's Health*, published by the American Medical Association.

Mrs. Joan S. Pollack, a University

City, Mo., mother, pointed out that the major hazard in passing on such tales is that the pregnant woman seems to be especially imaginative. She is concerned with protecting her child and is only too likely to be scared by the myths.

Among the myths are:

—Broad-hipped women have easier deliveries than those with narrow hips. This belief can't hurt, Mrs. Pollack noted, even though it is the internal, not external, measurements that determine ease of delivery.

—If you eat lobster, you will mark the baby. To which, Mrs. Pollack replied, "If I drink milk, will my baby look like a cow?"

—The majority of markings are supposedly due to happenings late in pregnancy, yet the fetus is formed early in pregnancy.

Not only can a mother never mark her baby in a detrimental fashion, but she will only bore herself if she listens to piano recitals 10 hours a day in hopes of influencing her child to be a brilliant pianist, Mrs. Pollack noted.

—It is safer to be born in the seventh month than the eighth month of pregnancy. This stems from an ancient Greek belief that a baby tried to get out during the seventh month and if it was strong it succeeded. If it failed and tried again the next month, it would be so tired it would die of exhaustion.

The truth is that every day a baby remains inside the mother—up to the normal term—it gets stronger and healthier and more likely to survive.

—It is lucky for a baby to be born with a caul. The Roman midwives sold cauls for good luck to sailors and travelers. The caul is caused when the membranes surrounding the baby are abnormally tough and instead of rupturing, remain intact and are pulled down with the advancing head.

Several other myths about labor, refuted by Mrs. Pollack, are: the baby's head sinks to the pelvis at the dark of the moon; change of moon starts labor; girls make harder labor than boys; each person the mother talks

to after labor starts prolongs the pains; if a woman has a large mouth, labor will be easy; mothers must not breathe deeply during labor since it holds the baby back.

MATCH TEST USED TO MEASURE RESPIRATORY FUNCTION

The simple act of blowing out a book match has now become a medical test.

It is used to measure the seriousness of airway obstruction in such pulmonary diseases as asthma or emphysema.

The test is described by four Michigan doctors in the *Journal of the American Medical Association*.

Wheezing and prolonged expiration—the usual bedside signs of airway obstruction—do not give the necessary information to evaluate respiratory function, the doctors said. It is usually evaluated by two rather complicated tests requiring the use of mechanical devices, which cannot always be brought to a bedside.

The match test was devised as a simple bedside means for checking airway obstruction. The doctors gave the match test to 126 patients with various pulmonary diseases. Next they gave the two standard respiratory function tests and then correlated the results of the three tests.

The match test, they believe, is useful as a screening procedure. If a patient is unable to blow out a match held six inches from his mouth, it is a sign he should undergo the more specific complicated tests.

The authors are Drs. Thomas H. Snider, John P. Stevens, Freeman M. Wilner, and Benjamin M. Lewis of the Veterans Administration Hospital, Dearborn, Mich., and Wayne State University College of Medicine, Detroit.

SPEED AND ACCIDENTS

Most bike riders in accidents with motor vehicles are violating traffic laws, a National Safety Council study revealed. Most bike accidents, the study showed, occur during April-September.

DIVISION OF PUBLIC HEALTH
MEDICAL SCHOOL, U. N. C.
CHAPEL HILL, N. C.



The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request !

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

September, 1959

No. 9



MCDOWELL COUNTY HEALTH CENTER
MARION, N. C.

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Ready For School

By William H. Richardson
 N. C. State Board of Health
 Raleigh, N. C.

We are going to discuss the last chapter in the booklet, "The Pre-School Years". We shall quote from chapter eleven of that booklet:

"It is a big day for you and your child when he sets off to school for the first time, whether the school is play-group, nursery school or kindergarten. He has started on a whole new phase of life—a phase in which he will gradually become more independent of you, in which he will become a member of a new group centered outside of his home.

"This is a preparation for an active

life with many ties and many relationships with people. When we consider the long years that our American children spend in school, we can see how important it is that they get a good start.

"What can you do to make the first days and weeks of school a pleasant adventure to your child? In the months before school starts, you may 'prepare' him in many ways.

"First of all, he should gradually become accustomed to separation from you for periods of several hours at a time. In most families, this 'learning'

happens quite naturally and easily. Your youngster will be invited to play with a friend, or he may stay with a relative or adult friend while you go shopping or to the movies. If for any reason your child has not had much experience getting along without you, make a special effort to give him this valuable experience. The knowledge that he can have fun without running to you every few minutes, and the knowledge that after every separation you will come together again, will be important in helping your child accept his new standing as a 'big' boy or girl: a school child.

"Since a child's new life in school will consist, in large part, of new relationships with children his own age, it will be valuable preparation if he has a chance to get used to playing with small groups of children before he actually goes to school. Such elementary social rules as 'taking turns' will mean more to your child if he has learned them gradually under your direction.

"It will also make things easier for him if he is reasonably independent in such everyday routines as eating, washing, and dressing. The child who looks to his mother to feed him his dinner, or who expects her to bundle him into his outdoor clothes while he remains limp and helpless, will quite naturally miss her more than the child who has made a beginning at self-help.

"There are a few facts that are useful for a youngster to know when he goes to school. He should know his full name and his address. Most children learn these in the course of the pre-school years, but if for any reason your child seems unsure about these items, teach him in the weeks before school. If you have a telephone, see if he can remember that number, too. Make a game of it and he will have fun learning.

"Since young children are often absent-minded about their belongings, it will help you, your child and his teacher if you have his outer clothes clear-

ly marked with indelible ink or name tapes, and if you fasten gloves to a long tape running through his coat sleeves.

"Your child will enjoy being familiar with the materials that he will use at school. Nowadays, all kindergarten and many first-grade children spend a good deal of time in active work with such creative materials as blocks or paints or clay. Give your child a chance to use such materials at home. See that he knows how to turn the pages of a book without tearing them, and, if he seems interested, show him how to print his name in big capital letters with a crayon or pencil.

"Your school age child needs to know the primary rules about crossing streets safely. Long before he is ready for school, he can be taught to watch traffic lights and to tell you when it is time to cross. If there are no lights in your neighborhood, make a game of looking two ways before stepping off the curb. And remember that there must be no exception to these rules! One mad scramble to beat the lights—even if your child is in your arms or in a stroller—may defeat the lesson learned by hundreds of reminders about waiting.

"The age at which a child can go safely to school by himself will depend not only on the amount of traffic in your particular community but also on his ability to take this responsibility. You will want to go with him at first, to acquaint yourself and him with the route and the possible danger spots. Perhaps later you can escort him part of the way—across the busiest avenue, for example.

"If your child is timid about going alone on the street, do not urge him. Give him time to learn and to feel safe without you. If he is eager to be on his own, but is an impetuous or heedless child about other hazards, do not let yourself be swayed by his pleading until he has shown you his ability to stop at each street and to walk, not run, calmly across.

"Take your child to a physician for

a thorough physical check-up before the beginning of school, and check with your doctor about booster shots and vaccination. No child can be happy in school if he is physically below par, and the time to find out about this is before he starts.

"After school has begun, you may help in many ways, too. Take an interest in his activities, but be sure that that interest is not limited to such questions as 'Were you a good boy in school today?' or 'Did you learn anything in school today?' Ask him, rather, did he have a good time in school, what children were there, whether he painted or played with blocks. The young child who goes to school for the first time is not interested in making a good record, and he is not self-conscious about being 'good'. He is interested as all healthy children are, in being busy and happy.

"Encourage friendships with classmates, where that is possible. To the child who has even one good friend in his class, school is a more jolly and less forbidding place than to the child who has no outside contacts with his school group. It is usually possible to arrange for a friend to visit some afternoon or some Saturday, and to encourage him to visit friends when he is invited.

"Allow plenty of time to get dressed and to have breakfast in the morning. Many children are indifferent to the passage of time, and they are not able to take the responsibility of being ready for school when they first start going. See that your child has at least an hour between the time when he gets up in the morning and the time when he must leave the house. He will probably need it. Young children pause to handle a toy in the midst of dressing, they dawdle over the picture on the cereal box at breakfast. Nagging your youngster will not do much good, but allowing extra time so that he is not rushed every minute will make a more peaceful morning for all of you.

"It is important for a child to have a good breakfast in the morning. But

in the excitement of his adventures, he may temporarily lose his appetite. It is a temptation when you are rushed and perhaps a bit worried to urge or to scold him a bit, but of course, this rarely helps. Remember that children take their feelings right along with them to school. If they have an unpleasant start in the morning they will arrive at school feeling strained and upset. For the first few days, a glass of orange juice or milk and toast may be all your child wants, or, if he eats practically nothing, fix a small sandwich for him to eat on the way, or give him some fruit.

"If your child is reluctant to go to school at first, that does not necessarily mean he is not ready for it. It may be simply the kind of timidity that many people feel when approaching a totally new experience. You can help him through this period in many ways.

"Before school starts, take him to the school grounds so that he can see the place. If you can do this in the spring when school is in session, he may meet his future teacher and see other children enjoying school activities. Even if you go in the fall before school is actually open, it will give him some sense of familiarity with the setting, and some mental picture of it.

"When the time comes for him to go to school, do not encourage his clinging to you by prolonged farewells. An affectionate 'See you later', will start him off with the thought that he will come back to you before too many hours have passed. If he still cries and clings to you, however, find out what your school policy is regarding school entrance. Many schools today encourage parents to visit for some time during the first few days rather than insisting on an abrupt parting. Your sitting quietly in the classroom may give your child confidence, and it will also give you a chance to become familiar with the teacher and his classmates. After the first few days, it may make parting easier for him if his father or an older brother or sister can take him for a time."

Rules And Regulations Governing State Aid To Mosquito Control Districts Or Other Local Governmental Units Engaged In Mosquito Control Undertakings

For the purpose of administering State funds received by the State Board of Health to aid mosquito control districts or other local governmental units engaged in mosquito control undertakings, pursuant to the provisions of Chapter 832, Session Laws of 1957, the North Carolina State Board of Health adopts the following Rules and Regulations Governing State Aid To Mosquito Control Districts Or Other Local Governmental Units Engaged In Mosquito Control Undertakings.

SECTION I. CREATION OF ZONES

For the purpose of administering these rules and regulations, the State of North Carolina is divided into three zones as follows:

A. Zone I shall be comprised of those counties in which the studies of the Salt Marsh Mosquito Study Commission showed a salt marsh mosquito problem to exist, and shall include the following counties: Beaufort, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Hyde, Jones, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell and Washington.

B. Zone II shall be comprised of those counties not in Zone I where the highest probability of mosquito-borne disease outbreaks exists, and shall include the following counties: Gates, Hertford, Bertie, Martin, Pitt, Lenoir, Duplin, Sampson, Bladen, Columbus, Robeson, Cumberland, Johnston, Wayne, Greene, Wilson, Nash, Edgecombe, Halifax and Northampton.

C. Zone III shall be comprised of those counties not included in Zone I or Zone II.

SECTION II. ALLOCATION OF STATE FUNDS OR FACILITIES—GENERAL

Before aid is given in the form of cash, the county, town or other governmental unit applying for such aid shall submit a project application to the

North Carolina State Board of Health on a form provided for that purpose.

Project applications shall list the cash, materials and supplies, equipment and other facilities that will be provided by the applicant during the fiscal year.

In computing the monetary value of local funds and facilities provided by the applicant, in order to determine the amount of State aid that can be given on a matching basis, credit will be allowed for labor, materials and general operating expenses, as well as rental on equipment that has been approved for use on the project by the representative of the State Health Director. The rental rates will be established by said representative of the State Health Director. No credit will be allowed for money spent to repay loans or to pay interest, purchase equipment or real estate, or for overhead expenses such as clerical help, office and storage space rental, etc.

State funds shall not be spent by local governmental units to purchase equipment, make repayments on loans, pay interest on borrowed money, purchase real estate, pay clerical personnel, rent storage or office space, or for any purpose other than those directly connected with the application of mosquito control operations.

Embodied in project applications shall be such assurances and agreements as may be required by the official of the North Carolina State Board of Health who is responsible for the administration of this activity. These shall include:

(a) The assumption by the applicant of all responsibility for claims for damage resulting from the operation of the project.

(b) An agreement to submit such plans as may be required to the North Carolina State Board of Health and to perform all work in conformity with the

plans that are approved by the appropriate representative of the North Carolina State Board of Health.

(c) An agreement to use funds provided by the North Carolina State Board of Health and those shown on the project application as being provided by the applicant exclusively for mosquito control, in accordance with these rules and regulations and the approved plan.

(d) An agreement to perform all mosquito control under the direction of a competent supervisor whose qualifications meet the approval of the North Carolina State Board of Health.

(e) An agreement to submit reports at the end of each month showing work performed during the month, expenditures made, facilities utilized and materials expended.

(f) An agreement to submit a certified financial statement to the North Carolina State Board of Health no later than ten days after the last day of December and June of each year. Such statement must include an itemized account of expenditures during the preceding six months, of both local and State funds, as well as an itemized account of other assets and facilities that have been utilized to carry out the mosquito control project. Such supporting documents as may be required by the North Carolina State Board of Health shall be included.

(g) An agreement to return to the North Carolina State Board of Health, at the end of December and June of each year, all State funds not matched by local expenditures for mosquito control purposes during the preceding six months. In lieu thereof, the State Health Director may allow the excess of State funds, over local funds expended during the preceding six-months' period, to be deducted from the State aid given the applicant during the next six-months' period.

In Zone I, if the application for State aid is made by a county, the application must be signed by the local Health Director, and the project must be operated under his direction or un-

der a person designated by him. If the application is made by a local governmental unit other than a county, a resolution must be adopted by the governing board of such governmental unit designating an official to sign necessary papers in connection with the mosquito control project. In such cases, operation of the project shall be under the direction of the designated official, but approval of the project by the local Health Director shall be required. In Zones II and III, the project application shall be signed by the local Health Director, and the project shall be carried out under his direction or under a person designated by him.

The provisions of these regulations requiring that the local Health Director sign, approve or direct a project shall not apply to any application made by, or project conducted by, a Mosquito Control District established under the provisions of Chapter 1247, 1957 Session Laws.

SECTION III. ALLOCATION OF FUNDS

A. **Zone I.** Seventy-five per cent of the State funds available for allocation to local mosquito control projects shall be set aside for aid to local governmental units within Zone I.

If sufficient State funds are available, the amounts provided by local appropriations for mosquito control projects in Zone I shall be matched on a fifty-fifty basis for temporary control measures, and on a basis of twice the amount of local appropriations, or the monetary value of other facilities provided locally, for drainage, filling or dyking. If insufficient State funds are available for matching on this basis, the State aid is to be allocated to local projects in any one county as follows: the first one thousand dollars (\$1,000.00) of State aid is to be on a fifty-fifty basis; thereafter, the State aid is to be allocated on a pro rata basis to be determined by dividing the total remaining appropriations and monetary value of other facilities provided [above the one thousand dollars (\$1,000.00) matched on a fifty-fifty basis] by all

of the local governmental units in Zone I into the total remaining State aid available for projects in that zone. In no case is the State aid to all projects within a county to exceed fifteen thousand dollars (\$15,000.00) when there are insufficient funds to match on a fifty-fifty basis.

Two or more governmental units in Zone I may jointly employ a supervisor to look after mosquito control activities. The North Carolina State Board of Health may match local funds to pay the travel and salary of such supervisors on a fifty-fifty basis, if State funds are available. The qualifications of supervisors employed under this provision must be approved by the representative of the State Health Director.

B. Zone II. The local Health Director shall be the official in Zone II who is recognized by the North Carolina State Board of Health as authorized and empowered to sign and execute documents necessary in connection with applications for aid in the control of mosquitoes, to carry out all agreements stipulated in the project applications and perform other acts that are necessary in connection with the operation of the project.

All State funds and other facilities provided for mosquito control projects in Zone II shall be disbursed through the local Health Director.

In Zone II, State funds allotted to local health departments for mosquito control purposes shall be allocated on a fifty-fifty basis with local funds, or the monetary value of other facilities provided locally, with a maximum allocation of two thousand four hundred dollars (\$2,400.00) to any local health department.

C. Zone III. The local Health Director shall be the official in Zone III who is recognized by the State Board of Health as authorized and empowered to sign and execute documents necessary in connection with applications for aid in the control of mosquitoes, to carry out all agreements stipulated in the project applications

and perform other acts that are necessary in connection with the operation of the project.

All State funds and facilities provided for mosquito control projects in Zone III shall be disbursed through the local Health Director.

In Zone III, State funds allotted to local health departments for mosquito control purposes shall be allocated on a fifty-fifty basis with local funds, with a maximum allocation of six hundred fifty dollars (\$650.00) to any local health department.

If the present appropriation for aid to local governmental units engaged in mosquito control is increased or decreased by a subsequent General Assembly, the maximum allocations to local health departments in Zones II and III shall be increased or decreased in accordance with needs or lack of needs by the same percentage that the additional or smaller appropriation increases or decreases the existing appropriation.

SECTION IV. AUTHORIZED CHANGES IN ALLOCATION RULES

If, at the end of a reasonable deadline for submission of applications for State funds to aid in mosquito control in any zone, the funds set aside for aid in that zone have not been applied for and allocated to local governmental units in that zone, the State Health Director is authorized to utilize such funds for assistance to projects in other zones and to change the allocation basis.

If, at the end of the second quarter of the fiscal year, it is determined by the official of the North Carolina State Board of Health who is responsible for the administration of this activity that State funds allocated to any project will probably not be spent and matched by local expenditures or other creditable assets by the end of the fiscal year, said funds may be reallocated to other local projects on the basis of potential mosquito densities and local participation.

Other State funds that become available for allocation to local projects

from any source, after the end of the second quarter of the fiscal year, may be allocated to local projects in either of the three zones on the basis of potential mosquito densities and local participation.

SECTION V. REPEAL

All rules and regulations hertofore adopted by the North Carolina State Board of Health in conflict with the provisions of these rules and regulations are hereby repealed. The regulations concerning State aid to local governmental units for mosquito control purposes, adopted by the North Caro-

lina State Board of Health on February 7, 1958, are hereby repealed and replaced by these rules and regulations.

SECTION VI. EFFECTIVE DATE

These rules and regulations shall be in full force and effect from and after July 24, 1959.

The foregoing rules and regulations relating to the administering of State aid to assist local governmental units in carrying out mosquito control projects were duly adopted at a meeting of the State Board of Health at Raleigh, North Carolina, on July 16, 1959.

Safety In Tar Heel Homes

(From Home Safety News Notes, published by Accident Prevention Section, N. C. State Board of Health.)

What's The Score?

According to data just released by the Public Health Statistics Section of the North Carolina State Board of Health, sixty-two residents of the state lost their lives in home and farm mishaps during the month of June, 1959. This is six fewer deaths than reported for the preceding month—May, 1959. Home and farm accidents caused the deaths of 399 North Carolinians during the first six months of 1959; for the same period in 1958, the toll from home and farm accidents was 432 deaths.

For the first six months of 1959 all accidents caused 1226 deaths; motor vehicles accidents caused 573 deaths; home and farm accidents, 399 deaths; all other accidents, 254 deaths. In 1958, the accident toll for the first six months was 1190 deaths with the following breakdown by major type: motor vehicles, 482 deaths; home and farm, 432 deaths; and all other accidents, 276 deaths.

Prevention of Fires

Very soon now fires for heating purposes will be started in homes across the state. With the coming of the fall and winter seasons comes also the time

when there is a sharp rise in the incidence of burns—both fatal and non-fatal.

A review of the accident fatalities in homes, on farms and in resident institutions in North Carolina in 1958 has revealed that there were 211 deaths attributable to fires, explosions and other associated causes; eighty-nine, or 42 percent, of these deaths occurred in children under 15 years of age. Fatal burns were greater among the non-white group—125 deaths, as compared with 86 deaths among the white population. It is interesting to note that the burn fatalities were almost evenly distributed according to sex: 105 deaths in males and 106 deaths in females.

Many factors play a part in fire accidents which result in death and serious injuries: poor housing, faulty or inadequate heating systems (both central and space heaters), lack of knowledge and unsafe personal habits and practices. The significance of some of these factors can be materially reduced through the institution of effective safety measures. Routine inspections and repairs of home heating units, regardless of type, should be a must for all heads of household prior to starting the unit. At the same time

it is wise to rid attics and basements of accumulations of rubbish and waste papers which so often contribute to home fires.

Opportunities to teach the facts about fires and their prevention are unlimited: through individual counseling; through group meetings; through bulletin boards in health departments, welfare departments, schools, agricultural extension offices and other public buildings; and through exhibits at community and county fairs.

Fire prevention materials are available from the Accident Prevention Section and films on fire safety are available from the State Board of Health's Film Library.

Protecting School Children

Happy New Year! This greeting isn't so out of place as you might first think. September is the beginning of a new year—the 9-month year when our state's schools are in regular session. Did you ever stop to consider how much of our life is geared to this schedule? Many community clubs and organizations refer to this as the start of the year, whether or not they have school connections.

The opening of school doors affects virtually everyone. If you have youngsters in your own home, there is an immediate change in the very pattern of your days. When you get behind the wheel of your car, you are sure to notice some differences. School areas are being guarded by traffic police, extra traffic signs and signals and by the children themselves. In the hours just before and after school there are increased numbers of bicycle riders and large groups of child pedestrians on

routes to and from school. In rural areas youngsters may of necessity be walking in roadways.

A sense of responsibility and dependability grows as we mature. As adults we must realize that the 5 or 10 year-old simply can not be expected to be completely reliable in his safety habits. Our added alertness must compensate for children's mistakes—give them a chance to learn.

Motorist, will you — — —

1. Be alert for children at all times, but especially around school yards, playgrounds and other places where children congregate?
2. Know and obey the special warnings given in school areas by signs and signals, traffic police and school patrols?
3. Give bike riders a brake?

Parents, will you — — —

1. Set a good example for your children by your own alertness and precaution in traffic?
2. Check with your children's school to be sure that your safety lessons are consistent with its teachings?
3. Teach your youngsters to obey all traffic safety rules at all times.

Children, will you — — —

1. Obey all traffic officers, school patrol leaders and traffic signs and signals at all times?
2. Obey the rules learned in school and at home about crossing streets and playing only in safe places?
3. Use your roller skates, tricycles, scooters and wagons on the sidewalks safely and watch out for walkers when you are using these playthings?
4. Learn the rules for safe bicycle riding and obey them at all times?

School Accidents Bring Tragedies

Consider, as back-to-school time approaches, these five facts from the National Safety Council:

1. Accidents are the leading cause of death to school-age children.
2. More than 2,500 children 5-14 years of age are killed annually in accidents involving motor vehicles.

3. More than 1,100 of those children are pedestrians.

4. A total of 150,000 children in the 5-14 age group are injured each year in motor vehicle mishaps.

5. One out of 12 students injured in a "school-jurisdiction" accident is on his way to or from school.

That's the problem—and back-to-school time is when the problem reaches its peak, according to the National Safety Council.

Solution to the problem?

"Parents," the Council said, "should teach their children to stop, look and listen before crossing streets or railroad tracks. It's not old-fashioned to be safe.

"Parents also should set a proper example. Don't expect a child to obey a rule you violate."

Some Council suggestions to motorists as the nation's schools prepare to open their doors:

1. Keep your car in good condition. Pay special attention to tires and brakes. You can't blame the garage man if your car doesn't stop quickly enough in an emergency.

2. Drive slowly near schools. And slow down where children are walking or playing.

3. Expect the unexpected from children. Most of them get hurt running from behind parked cars or crossing in the middle of an intersection.

SCHOOL CHILDREN AND SCHOOL FIRES

There are 39 million reasons for making sure our schools are fire-safe: the nation's grade and high school students.

Making sure students stay safe is a job for parents, as well as school officials.

"Parents," the National Safety Council said, "are as responsible for protecting their youngsters at school as are school officials.

"Through parent and civic organiza-

tions, mothers and fathers can press for fire-safe schools for their children.

"It has been said that fire safety does not necessarily cost a lot of money. It does, however, take intelligent thought and action—before a fire starts!"

Fire safety may not involve considerable expense, but a lack of fire safety certainly does. In 1957, for example, the 4,300 school and college fires in the United States cost the nation more than 30 million dollars.

What can you do to bring about adequate fire safety in your child's school? Here are some National Safety Council suggestions:

Parents should teach fire safety as a part of daily living until it becomes second nature.

Schools should give fire safety instruction throughout the year and should integrate it with such studies as science, arts and crafts, health education and social studies, which lend themselves well to teaching fire safety.

Responsibilities of the school administrator, according to the Council, consist of:

1. Conducting regular inspections and evacuation drills and insuring construction of fire-safe schools.

2. Having sprinkler systems, automatic alarm and detection equipment which can be activated at several points of the school building, and, if necessary, can be activated with an auxiliary source of power.

3. Regularly instructing teachers in fire and emergency procedures, fire prevention practices, first aid and panic control.

Lead Poisoning In Children

By Nettie Day

Childhood lead poisoning is a serious disease. Twenty-five percent of children poisoned by lead die, and another twenty-five percent suffer irreversible mental deficiency or neurological damage. Death and/or complications are more likely with repeated episodes of this disease in children.

Children with pica, the abnormal appetite for non-edible substances, are usually involved. These children are usually between the ages of one and five. Most of the cases of poisoning develop in children who live in old run-down housing, the walls and fixtures of which have been painted with

layer after layer of lead paint. The paint peels and children with pica ingest the paint peelings. Occasionally, poisoning occurs from inhalation of lead fumes resulting from the burning of storage batteries for fuel.

The control of this childhood killer is based on early diagnosis and prevention. The alerting of physicians, public health nurses and mothers of young children in poor housing areas to the early signs and symptoms of lead poisoning in children is an important public health activity. If the disease is found in its early stages,

proper de-leading therapy with calcium-disodium versenate can be instituted with good results. Results with this drug are far from satisfactory if the child is treated in advanced stages of poisoning. Death rate from advanced lead poisoning has not been altered by this antidote. Thus case finding is a crucial activity in this disease.

I, think you will be interested in the pamphlet "Recognition of Lead Poisoning in Children", produced by the U. S. Public Health Service, Department of Health, Education, and Welfare.

N. C. Memorial Hospital At UNC Observes Seventh Anniversary

North Carolina Memorial Hospital at the University of North Carolina observed the seventh anniversary of its opening Wednesday, Sept. 2.

The hospital was opened to receive patients on Sept. 2, 1952. On the day the hospital opened, 78 beds were available for patient care, and the hospital staff numbered 215 persons. Today the hospital has a capacity for some 400 patients and the staff has grown from 215 to 950.

The first patient admitted to the hospital was Mrs. John F. Bolton, a housewife of West End. At the close of the first day of hospital operation, seven patients had been admitted.

Year before last, on the fifth anniversary of the hospital opening, a plaque was unveiled carrying the names of 168 staff members of N. C. Memorial Hospital and the UNC School of Medicine. These were the persons who had continuously served the school and hospital for five years. Last year an additional 100 names were added to

the plaque, and 70 were to be added this year.

A three-fold program is carried out at Memorial Hospital. This program consists of teaching, patient care and research. Since the hospital opened seven years ago, 343 physicians have graduated from the UNC School of Medicine. These men and women received their clinical training at the hospital. Also, the students of the UNC School of Nursing receive their training in the hospital.

Since Memorial Hospital is owned and operated by the people of North Carolina, it is significant that patients have been admitted to the hospital from each of the 100 counties of the State.

The late Dr. Malcom T. McEachern of the American Hospital Association summed up the opinions of many leaders in the field of medicine when he visited Memorial Hospital at its opening and said, "The new health center is an apex in service to humanity."

Notes And Comment

"STOP PUSHING" IS BAD ADVICE TO EXECUTIVE

Telling a junior executive to "slow down or you'll have a heart attack" may be adding just one more reason for him to remain tense and anxious, a New Jersey psychiatrist warned re-

cently.

He is already suffering from an emotional—and perhaps psychosomatic—disorder, which "is itself a stress, and a disgrace in our society's thinking," according to Dr. Richard E. Gordon, Englewood, N. J.

Warning the executive of serious emotional illness, heart attacks or early death—all of which he has already seen in his friends and relatives—merely adds a new worry. The new worry causes further tension and produces new symptoms. Then the new symptoms add to the fears, and a vicious cycle is under way.

The only way to help such persons is by clear explanation of how their symptoms and disorders came about and by practical suggestions about ways they can change their lives to meet the problems, Dr. Gordon wrote in the *Journal of the American Medical Association*.

It might even be possible to help these persons through organized classes—especially in rapidly growing suburban areas where the rate of emotional and psychosomatic disorders is highest, Dr. Gordon said.

Such classes could be patterned after those given to expectant mothers to help alleviate post-delivery emotional difficulties. Two 40-minute classroom sessions have been quite effective in helping women make necessary changes in their lives.

He based his suggestion on findings of a study comparing the rates of psychosomatic ailments in a rapidly growing suburb with that of more stable communities. The suburb had a much higher rate of psychosomatic ailments (ulcers, heart disease, and high blood pressure), probably because many of the residents are "upwardly mobile."

They are striving to rise socially and economically "out of the working class into subexecutive white-collar jobs and lesser managerial positions," Dr. Gordon said.

But they face a serious problem in their rise toward greater executive responsibility because they were not "born to the class" as were many of the men who are top executives.

The upwardly mobile person has to learn everything the hard way—by personal trial and success or error, Dr. Gordon said. He "may have a great deal to lose and knows it. If his de-

cision backfires he may lose his job and his future and be thrown back to the insecurities of his past. He wears his responsibility heavily."

In addition, he has usually been sensitized by the stresses of his early life, which makes him more susceptible to psychosomatic ailments.

The financially and socially well-to-do person, however, has usually been burned less in his early years. Also, he is often well established so that "he cannot be much hurt if he makes a bad decision," Dr. Gordon noted. "He has not much to fear from the past, present or future, so can relax at the end of the day, can exercise, look after his health and play." He has a lower rate of psychosomatic disease.

Psychosomatic illness and emotional disorder will disappear in the upwardly mobile person only when he feels he is secure and is able to relax. However, before that time comes, he may have undergone irreversible physical changes. To prevent this, he must learn to cope with his problems as he goes along. It is the physician's responsibility to teach him this, Dr. Gordon concluded.

SAFETY AND THE YOUNG

A good reason for being safety-conscious at school time, the National Safety Council says: the 39 million grade and high school students in the United States. Keeping students alive and safe, the Council says, is a job for all of us.

* * *

Nearly six million motorists are under 20 years of age, according to the National Safety Council. One in 14 drivers is a teenager.

* * *

Speeding is the main fault of teenage drivers in accidents, National Safety Council records show.

* * *

The 4,300 school and college fires in the United States in 1957 cost the nation more than 30 million dollars, the National Safety Council reports.



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Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request!

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

October, 1959

No. 10

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A STUDY OF RADIATION EXPOSURE TO OPERATORS OF X-RAY EQUIPMENT

By Edgar F. Seagle, M.S.P.H.
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Stray radiation is unquestionably a concern of all operators of x-ray and other high energy apparatus used for diagnostic, therapeutic and other uses in today's modern world of science. Health departments are being called upon more and more often to determine if certain exposures are safe. We decided to make a survey in Charlotte to investigate the situation in terms of radiation exposure to oper-

ators of x-ray equipment. This gave the Health Department an opportunity to acquaint these persons with further radiation protection information and emphasize the necessary rules and procedures for safe operation.

A voluntary approach was used. We sent each physician, surgeon, dentist, veterinarian, osteopath, chiropodist, chiropractor, and hospital a letter from the Health Director offering the ser-

vice of checking their x-ray installation. The letter was designed so that one could merely check yes and mail it back to us in a self-addressed stamped envelope which was enclosed. This, of course, placed entry into these offices on a request basis, which promoted cooperation during the actual survey.

Out of 349 letters mailed, there were 140 replies requesting service. It should be noted, however, that letters were mailed to all physicians and other categories regardless of their specialties. Those who did not use x-ray

equipment in their practice did not reply. Also, those who did use x-ray equipment but did not wish to have theirs checked did not reply. Where two or more used the same unit only one might reply for all. In the future a more precise method of measuring response will be employed. By noting the percentage of installations surveyed in Table I below, one can see the response, based on the number of installations in use, from our offering of this service.

TABLE I

Category	Estimated Number of x-ray instal- lations in Char- lotte	Number of installations surveyed by request	Percentage
Physicians and Surgeons	104	70	67
Dentists	92	57	62
Veterinarians	13	5	38
Osteopaths	3	0	0
Chiropodists	4	1	25
Chiropractors	5	1	20
Naturopaths	0	0	0
Hospitals	7	6	86
TOTAL	228	140	61

Our major measuring device was a Dosimeter, a popular and accredited personnel monitoring instrument. To determine the exposure of these persons to stray radiation in their work, we began by having them wear a Dosimeter for at least one week. This, of course, had to be an average week in terms of operation of their x-ray equipment, or the time was started over again. Some wore two and even three Dosimeters at various locations on the body and some for as long as four weeks if the particular situation required it. After this preliminary screening, those with high readings were further surveyed with a suitable type ion-chamber instrument to deter-

mine if the installation was at fault or if bad practices were being used. In every case, regardless of the reading, practical methods for reducing the amount of radiation exposures were discussed. Briefly, this included such things as distance and shielding, thickness and use of filters, using the right size cone for the distance and desired film coverage and the proper kilovoltage and milliamperage.

Table II is a compilation of the radiation exposures found by the method described above. Over 99% fell within the accepted limits of safe exposure. However, going on the basis that the least amount of radiation exposure is the best, this was a valuable survey.

TABLE II

Category	Milliroentgens Per Week*							Total
	0-25	26-50	51-75	76-100	101-150	151-200	over 200 Offscale	
Physicians and Surgeons	43	2		1				46
Dentists	44	5	4	1		1	1	56
Dental Assistants	3	3			1			7
Veterinarians	4							4
Chiropodists	1							1
Chiropactors	1							1
X-ray Techni- cians (incl. Hospitals)	12	4				1		17
TOTAL	108	14	4	2	1	2	1	132
PERCENTAGE**	81.8	10.6	3.0	1.5	0.8	1.5	0.8	100

*Whole body radiation, measured in air.

**Percentage of all categories surveyed.

This survey had several advantageous facets. First, it afforded an opportunity to talk about radiation safety with concerned persons who were actually using it and who were in a position to pass it on to their fellow workers. Secondly, it served as an introduction for another useful and sustaining service from the Health Department. Thirdly, it has built up a gratifying relationship between these professional groups and the Health Department. Requests for repeat service or new service continue to come in.

In addition to the above things, some unusual and some typical, conditions came to light as a result of the survey. Just to mention a few of these briefly, they were:

- (1) A small source of radium used for therapy was kept in a treatment table drawer. It had no lead shielding. When the physician stood close to the table to give treatment of any kind, he was receiving an unnecessary dose of radiation to the gonadal region. This was first noticed by his Dosimeter's going up considerably after using this table and then confirmed with the ion-chamber. The source is now

kept in a lead container.

- (2) An x-ray technician had the habit of standing just inside the x-ray room while taking pictures for use in urology. He wore a Dosimeter for one week using this technique and then for one week standing outside the room. His exposure outside was six times lower. He now makes standing outside a standard practice.
- (3) Two veterinarians were fluoroscoping animals without using leaded gloves. They said they could not hold the animal and use the necessary instruments and technique with the bulky gloves. The hands were of course exposed to the useful beam of x-rays. By strapping a Dosimeter to the wrist of the operator it was dramatically brought home just how large their personal exposure was. Gloves are now worn except in extreme situations, and then fluoroscopies are spaced far enough apart so that the total amount of radiation received in one week by the hands is well below the accepted safe limits.

- (4) In one instance in which three dentists shared the same quarters it was found that two of them stood in the hallway when activating their x-ray unit. The third one had a habit of standing inside the room housing the x-ray unit. They all stood well away from the primary beam, but the one standing in the office received twice as much stray radiation as the two who took the time to move to the hallway. Now all three stand in the hallway.

There are many other findings and situations too numerous to list, but their existence and subsequent correction have made this type of public

health survey most rewarding.

Our Health Department is recognizing that exposure to ionizing radiation is truly a public health problem. The above-described survey and a previous one which resulted in the removal of all x-ray shoe fitting machines from operation in the city, supplemented by courses we give on radiological health to firemen, policemen, sanitarians and other categories of personnel in Charlotte, represent one health department's way of beginning to cope with this growing responsibility. With this supplementation to the State and Federal programs, it is hoped that all will eventually learn to use and live safely with this ever-changing scientific achievement.

Notes and Comment

DOGS CATCH MUMPS FROM CHILDREN

When Johnny has the mumps, Fido better stay away. He may catch them, too.

Two cases of mumps in dogs were reported in the Journal of Diseases of Children, an American Medical Association publication.

The transmission of mumps in animals other than man or monkeys has previously been considered to be rather improbable, and little has been reported on its appearance in other animals, the report said.

The dogs, pets of two different families, were a six-month-old dachshund and a three-month-old Boston terrier. They developed mumps after being in contact with family members who had the disease. The dogs were allowed upon the beds of the patients during their illness and convalescence.

The dachshund died a few days after he became sick, but the terrier recovered within 14 days.

Standard laboratory tests revealed the presence of the mumps virus in the saliva of both dogs, which displayed the usual symptoms of mumps—swollen parotid glands and difficulty in swallowing.

The report was made by Frank

Noice, Ph.D., F.M. Bolin, D.V.M., and D.F. Eveleth, Ph.D., D.V.M., of the department of veterinary science, North Dakota Agricultural College, Fargo.

MUSHROOM WORKERS DEVELOP "FARMER'S LUNG"

Commercial mushroom growing carries a peculiar hazard—at least for some of the workers, who develop a lung condition similar to "farmer's lung" and "silo-filler's disease."

Writing in the Journal of the American Medical Association, three West Chester, Pa., physicians reported 16 cases of the disease among migrant Puerto Rican mushroom workers.

The Puerto Ricans seem to be susceptible to some substance in the compost beds used in growing mushrooms which does not affect the workers of local origins, the doctors said.

Symptoms include cough; pain in the chest, stomach or muscles; difficulty in breathing; nausea and vomiting; headache; chill; rapid weight loss; loss of appetite; and tiredness. An attack lasts from four to 46 days, subsiding within one to six weeks after the patient is removed from exposure. No immunity appears to develop, since acute symptoms reappear with each exposure. The symptoms

sometimes resemble those of tuberculosis.

The physicians are unsure of the cause of the condition, but it could be the inhalation of molds or organic dusts during the laying or cleaning of damp compost beds which contain moldy hay and silage. Such dusts are believed to cause farmer's lung.

However, the symptoms also resemble those of silo-filler's disease, which is believed to be caused by the inhalation of certain gases, especially nitrogen dioxide, liberated in recently filled silos. It is possible that some of the gases which collect above the mushroom beds in poorly ventilated buildings contain nitrogen dioxide, the doctors said.

The symptoms of their patients could fit either farmer's lung or silo-filler's disease, the doctors said, adding that after reviewing the medical literature, they could not make any sharp differentiation between the two diseases.

The authors are Drs. Louise S. Bringham, Robert N. Byrne, and Jacob Gershon-Cohen of the Chester County Hospital, West Chester, Pa.

NEW TOOTH DECAY PREVENTIVE TECHNIQUE SUGGESTED

A slight change in table etiquette might be one way to fight tooth decay, a California dentist has suggested.

Tooth decay is not a steady degenerative process but rather a series of short "commando raids" lasting only 20 to 30 minutes and is generated by the fermentable sugars in food being eaten, according to Walter Drozdiak, D.D.S., San Jose.

If brushing or rinsing the teeth is delayed longer than 30 minutes after eating, little or no preventive effect will occur and "one might just as well forget about it altogether, which is what most of us do," he said.

Therefore, Dr. Drozdiak suggests that the mouth be rinsed right at the table. The idea is to wash away as much as possible the elements that cause decay—the acids and sugars—before the process of decay can begin.

Taking a sip of water after the meal

—or even at times during the meal—and swishing it around in the mouth for a few seconds before swallowing need not attract attention and can be done without inconvenience, he said.

Writing in *Today's Health*, an American Medical Association publication, Dr. Drozdiak noted that forming such a habit may take some effort, but it is well worth it. The teeth are the only part of the body which cannot heal or repair themselves after damage has been done.

In addition, decay does not ever start from within. It always begins on the outside of the teeth and arises from decay-causing conditions surrounding the teeth.

Teeth should be brushed after every meal and the brushing should do more than just remove loose debris and stains from the teeth. It should ideally remove from the teeth all adhering deposits of bacteria and tartar, and it should dislodge foreign matter trapped between the teeth and gums.

Dr. Drozdiak recommends that teeth—like pots and pans—should be checked after cleaning to see that they are really clean.

FIRST AID FOR SPINAL CORD INJURIES EXPLAINED

All injured persons who are unconscious or who complain of back or neck pain should be treated as though there were an injury to the spinal cord, according to an Indiana physician.

With careful treatment, more severe damage to the spinal cord may be avoided, Dr. Leslie W. Freeman, Indianapolis, wrote in a guest editorial in the *Journal of the American Medical Association*.

A surprising degree of function can be attained after severe spinal cord injury, he said, but it is frequently the early handling of the patient that determines the ultimate outcome.

When a person is injured, he is usually handled by a person untrained in medicine, and "it is amazing" how frequently they respond "instinctively toward proper handling," Dr. Freeman said.

However, he offered some suggestions for proper handling of the patient with a back or neck injury. The patient should be left unmoved until a physician arrives.

Then when he is moved, he should be moved "in one piece" without change in the vertebral alignment and never in a sitting or semireclining position.

If the patient can move his hands but not his legs, the spinal cord injury is below the neck. If he cannot move his hands, the injury is in the neck region, and the neck and head must be kept in perfect alignment with the body.

If the injury is below the neck enough persons must be present to lift the patient in such a way that the spinal alignment is not changed, and he should be placed on a stretcher (which might have to be improvised of boards) fully extended with the face down, Dr. Freeman said.

When the injury is in the neck area, the most convenient method for immobilizing the head is to wrap a tapered roll of heavy cloth around the neck until the bundle comes to the jutting end of the chin. The patient should be transported in a face-up position to facilitate breathing.

When the patient is being moved, someone should keep him from shifting and rolling about.

SPEECH TRAINING BEGINS ON FIRST DAY OF LIFE

A baby's desire to speak can be awakened as early as the fifth week of life, according to a New York speech expert.

Writing in *Today's Health*, published by the American Medical Association, Flora Rheta Schreiber said parents can and should get their child ready for good speech long before he speaks his first words.

They should begin on the first day of the baby's life, when the mother's arms, the softness of her voice, the aura she creates set the stage for the child's future mental health and his

successful speech and language development.

To learn to speak, a child must have an appreciative audience. If the mother responds to the sounds the baby makes, his desire to speak will be awakened in the first few weeks of life.

During the first months, the mother must give her child assurance through the tone of her voice. When she feeds him, she might say "dogs say bow-wow. . ." Or she can just coo. The words mean nothing, but the sound of the mother's voice means a great deal, Miss Schreiber said.

As the child begins to babble, parents should recognize this as a rehearsal for true speech and they should babble with him, the author said.

"Babble anything during these first seven months; it's not the sense that counts, but only the sound of love," she said.

Between six and nine months, when the baby begins to reach for a cup or a toy, the parent should babble its chief sound and follow it with the name. If the baby reaches for a ball, first say "awl," then "ball," Miss Schreiber said.

By the ninth month, the baby may be starting to mimic the words he hears. Then the parent should begin to talk real words to him—words that are short and contain sounds he can easily form.

Between nine and 12 months, when the baby begins to stand and poke around, name each object as he touches it and encourage him to make sounds, she said. Awaken his sense of rhythm by getting him to move to the tick-tock of a clock or to music.

As the child enters his second year, he should be given many opportunities to see the connection between things and experiences and the words for them.

"Give him new words in a relaxed manner. Make speaking the most natural thing in the world. At 12-15 months there is a speedup of words; at 15-18 months a slow-up replaced by a grasping of meanings, and after 18

months there's another speed-up," she said.

When a child searches for a new word, accept the search as even more important than the word itself. In this way, his assurance is built. A child gets excited about new words if he has been stimulated to do so and if he has been provided with a motive for speaking, she said.

If the early months have been used to stimulate a child to talk, he will start speaking his first sentence between 12 and 27 months. By three years he will be going great guns, chattering all the time, Miss Schreiber said.

MENTAL HEALTH "CONTAGION" MAY HELP WORLD PEACE

Physicians may some day be able to prevent family and community turmoil, to strike at greed and prejudice, and even perhaps help lay the foundation for world peace.

They may be able to do this because mental disease and mental health are just as "infectious" as a smile or the measles, according to an editorial in the *Journal of the American Medical Association*.

Although mental illness is as old as mankind, only recently have many physicians begun to view it as a disease—involving susceptibility and resistance factors—which is amenable to control through a broad program of preventive medicine.

Mental illness is now the only major public health problem that is not adequately reported, the editorial said. It then urged increased study of the cause and spread of mental illness and health and of techniques for preventing illness. Mental illness and health may well be the "epidemiology of the future," the editorial noted.

An accompanying "Medicine at Work" article noted that the seeds of communicability are "implanted in person-to-person contact, fertilized in the family to grow throughout the community, blown and sown from nation to nation. Contact might communicate a fleeting thought or involve the

transference of broad patterns of living."

The communicability of mental illness can range from that between a mother and child when the mother scolds and the child becomes anxious to that between nations which "breed dislike," the article said.

But health is also infectious, it said. "A child who is taught not to steal accepts this as a general idea, and it develops into a feeling—not just an understanding—that creates an iron-clad 'prejudice' against stealing."

To understand how all of this works and how the phenomenon of communicability can be used to help man toward better mental health must be the cooperative goal of physicians, psychologists, sociologists, teachers, anthropologists and clergymen, the *Journal* editorial concluded.

RARE CASES OF HALLUCINATIONS REPORTED IN A.M.A. ARCHIVES

When one person has a hallucination, it is interesting, but not unusual. When three persons—members of the same family—have similar ones, it is rare, and medicine takes notice.

The cases of two families, each with three members who had similar hallucinations, are reported by Dr. N. Lukianowicz, Barrow Hospital, Bristol, England, in the *Archives of General Psychiatry*, published by the American Medical Association.

Family A. consisted of a brother and two sisters. The brother and one sister lived together, while their married sister lived down the street. Their mother died at age 72 after long suffering from an inoperable cancer and senile dementia.

Shortly after the mother's death, all three children began "seeing" their mother just before they fell asleep. The brother said, "Since my mother died, her apparition comes usually twice a week through the closed door of my bedroom and stops at the foot of my bed. She stands there for a while and stares at me." A sister said, "She would come in, right through the panels in the door, and then would

stop at my bed and gaze."

They also reported "hearing" their mother call them by name during the day.

Their hallucinations continued until the brother entered a hospital for surgery.

Family B. consisted of a father, mother and daughter. They too experienced similar hallucinations, although they also had individual ones. Father and mother were once awakened by a knocking at their bedroom door when no one was there. The mother told of waking and "seeing" her husband sitting at the foot of the bed with his head in his hands. She asked if he were ill and then realized that he wasn't there at all, but was sleeping beside her. The daughter had daytime auditory hallucinations.

The father suffered recurrent hallucinations during the daytime. He "felt" someone's hand resting on his shoulder. He explained, "I knew at once who it was. It was my father, for he always liked to put his hand on my shoulder when talking earnestly to me. I turned around, but there was no one there."

After the second such experience, he and his wife decided it was "a delayed shock" after his father's sudden death and that he must be "imagining things."

The hallucinations ended after Mr. B. underwent psychotherapy.

Dr. Lukianowicz explained that most of these experiences were connected with sleep—either occurring just before going to sleep or just after awakening. However, those that occurred during the day were probably "ordinary" or "genuine" hallucinations, similar to those occurring in psychotic states or during infections and illnesses.

In both families, the central theme of the phenomena was the figure of a deceased parent, for whose death their respective children held themselves responsible. It is assumed, Dr. Lukianowicz said, that these experiences were precipitated by fear and an anxious

expectation of punishment.

Mr. B. hated his father, the doctor said, and entertained death wishes against him. When the old man suddenly died, Mr. B. held himself responsible and expected punishment, probably from the hand of his deceased father. The hallucinated "hand" resting on his shoulder may symbolize the warning of the approaching revenge or it may be a sort of conditioned reflex, since the father had rested his hand on Mr. B.'s shoulder when disciplining him.

Family A.'s strikingly similar and uniform hallucinations are not surprising, since, being siblings, they represent a more homogeneous group than Family B., Dr. Lukianowicz said.

The causative factors of the A.'s hallucinations may be similar to those of Mr. B.'s. Old Mrs. A., apart from being physically very sick, was also suffering from a mental illness, and must have been extremely trying at times. Hence her children could not help developing some death wishes, which might even have had a certain "moral justification," the author said. She was obviously suffering and they only wished that the death might bring "a deliverance" to her from her misery. Nevertheless, when she died, they all felt guilty and responsible.

Thus the image of their dead mother became the kernel of their secret fears and the menacing content of their imagery. The hallucinations occurring before sleep might even be called "real nightmares." Mr. A.'s hallucinations disappeared after his surgery, perhaps because he felt the surgery to be a form of punishment.

NEWEST ORAL DIABETIC DRUG IS "CLEARLY" USEFUL

DBI, the newest oral diabetic drug, is clearly of value in the treatment of all types of diabetes, Dr. Julius Pomeranze, New York, said recently.

Dr. Pomeranze, who conducted the first clinical tests of the drug, made his comment in the *Journal of the American Medical Association*. He re-

ported the results obtained in 206 diabetics given the drug for periods up to two years.

DBI, or phenethylbiguanide, is one of a group of drugs known as biguanides. It differs in action from other anti-diabetic drugs taken by mouth, which are sulfonylureas.

Dr. Pomeranze said, "The ultimate place of DBI in the management of diabetes will be determined after much more prolonged and widespread observation."

However, when it is used carefully, adjusting the drug to the patient's needs rather than attempting to fit patients into a rigid dosage pattern, it permits the cessation of insulin therapy in a significant percentage of diabetic patients and is useful, together with insulin, for better control of many of the patients with more severe cases.

The study showed that DBI could be used alone or with a reduced amount of insulin in 62 per cent of the patients regardless of the type of diabetes. The use of other oral drugs is limited to mild or stable cases of diabetes, since they are ineffective against juvenile or "brittle" diabetes.

DBI allowed some patients with mild diabetes to stop using insulin altogether and some with more severe cases to cut the amount of insulin used.

Diabetes occurs when the pancreas fails to secrete enough naturally-occurring insulin to burn up all the sugar taken in by the body. Then artificial insulin is necessary. The oral drugs do not replace insulin, but apparently help the body to better use what insulin it has.

Dr. Pomeranze said the sole limitation to the broader use of DBI appears to be its gastrointestinal side-effects. Twenty-six per cent of the patients treated had to stop the drug because of gastrointestinal side-effects. It seems that these are "inherent in the drug when proper individual dose is exceeded," Dr. Pomeranze said, but they may serve as a useful dose regulator and perhaps as a safety device.

Cooperating with Dr. Pomeranze in the study were Drs. George T. Mouratoff, Raymond J. Gadek, and Edward J. King. They are all associated with the New York Medical College-Metropolitan Medical Center Bird S. Coler Memorial Home and Hospital.

HEART OPERATIONS SUCCESSFUL ON RHEUMATIC FEVER PATIENTS

Young persons who have had rheumatic fever may safely undergo heart surgery, provided the disease is inactive, three Philadelphia doctors have reported.

Writing in the *Journal of the American Medical Association*, they asked that neither a patient's age nor the fear of recurring rheumatic fever deter heart surgery.

Drs. Albert Brest, Joseph Uricchio and William Likoff of Hahnemann Medical College, Philadelphia, stressed the importance of operating when rheumatic fever is not active and gauged the chances for a successful operation on this point.

Cardiac operations on rheumatic heart disease patients under 20 years old are rare, the doctors said, even when serious disability is present. They gave two reasons for this reluctance to operate. One is the belief that heart failure symptoms in this age group mainly arise from active rheumatic inflammation of the heart, rather than from a defective heart valve. Also, it is claimed that surgery reactivates the rheumatic fever of a person under 20.

Drs. Brest, Uricchio and Likoff, questioned these concepts on the basis of their operations, which showed that a mechanical obstruction may be the sole cause of a young rheumatic disease patient's worsened condition.

They added that failure to consider a mechanical heart defect may lead to an unnecessary prolongation of a critical disability.

The cardiac surgery which formed the basis of their study was performed between February, 1951, and August, 1958, on 30 patients 12 to 20

years old. The average interval since the most recent rheumatic fever attack was 8.6 years. In no case was it less than three years.

Follow-up observations lasted from four months to four years, and the patients showed no evidence of rheumatic fever activity.

TO DISCUSS OLD AGE PROBLEMS

The 1960 National Health Forum, March 14-17, at the Carillon Hotel in Miami Beach, dealing with **Positive Health of Older People**, will afford an opportunity not only to leaders of the health professions and of official health agencies, but also to responsible authorities in a number of other fields affecting the health of our older citizens to come together to share experience and ideas, identify opportunities and stimulate action in regard to the health of older people, according to Aubrey Mallach, Forum consultant.

"It is the particular purpose of the 1960 Forum to point to action which may be taken by various groups, agencies and communities to preserve and advance the positive health of our older citizens," he said.

Mr. Mallach recently sent *The Health Bulletin* a copy of the proposed theme statement on the Forum, as follows:

"Getting older is normal. At all ages, people manifest varying degrees of health or sickness, depending upon many different factors. Knowledge about these factors varies between individuals, families and communities, but they can all do something about some of them.

"Aging is a result of living, it is not an illness. With what is now known in the medical and social sciences, the extent of illness and disability at all ages, and degree of dependency created thereby, can be significantly reduced. With what can be learned through further study and research, the potentials for extended healthy and satisfying life can be greatly increased.

"Present knowledge and that to be gained by further medical and social research can be used more effectively to re-establish, safeguard and improve the health of those already in the older-age group, to assure greater, more positive health for the increasing numbers who will attain longer life in years soon to come and to enable them to retain a useful place in the social and economic structure of society.

"The 1960 National Health Forum will seek ways to remove some of the current obstacles in the path of more positive health of older people, to assure the application of new knowledge by individuals, families, and communities, to lay out guide lines and stimulate action so that present knowledge can be most constructively applied.

"Physical and mental well-being stem in part from, and contribute in part to, social and economic well-being. Any realistic—or even ideal—program to promote the positive health of older people must involve the many different forces which affect individual, family and community health. Participants in the Forum will, therefore, not only come from the health professions and the voluntary and governmental health agencies, but also will include those whose policies and actions affect the social and economic climate in which the older citizens live, i.e., legislators, leaders of business and labor, insurance, welfare and recreation, religion, education, housing, civic organizations, etc.

"By making knowledge more widely available, and by stimulating mutual understanding and respect among the many forces now involved in working with the aged, the Forum aims to further planning and action by the whole community. The sharing of experience and ideas under the inspiration of a meeting designed, not just to redefine a problem, but rather to identify opportunities and to stimulate action by appropriate groups should contribute significantly to the health of the nation as a whole."

TRANQUILIZER EFFECTIVE IN CONTROLLING TETANUS SPASM

Effective control of one form of tetanus spasm has been achieved with the use of a tranquilizing drug, a Chicago doctor said recently.

Dr. Meyer A. Perlstein said that meprobamate (Miltown) given intramuscularly is effective in controlling tetanus spasms created by the voluntary muscles. At the same time he reported that the drug has no effect on spasms created by the involuntary muscles.

His report appears in the Journal of the American Medical Association.

The doctor said that in spite of the widespread use of tetanus toxoid in immunizing infants and army personnel, the disease is still prevalent in certain areas of the United States. He added that the disease is extremely common in India, Africa, the West Indies and South America.

Tetanus, or lockjaw, is an infectious disease which is usually caused by a puncture, laceration, or gunshot wound. Symptoms involve a tightening of the jaw muscles and baring the teeth, and the body may become bowed backward or sideward. Spasms follow.

According to Dr. Perlstein, "The mortality and severity of tetanus of all types is closely related to the interval between the appearance of the first symptom and the onset of spasms. The shorter this interval of onset, the worse is the prognosis."

These spasms, he said, involve all of the muscles of the body and are extremely painful since the patient is always conscious. They can be triggered by bright lights, noises, pinpricks or skin pressure.

In the past, the spasms have been treated with barbiturates and similar drugs which act on the central nervous system. The doctor said that these sedatives had many undesirable side effects and often left the patient in a "deep sleep," unable to communicate with hospital attendants.

Following the use of meprobamate on a group of tetanus patients admitted to the Cook County Hospital in

Chicago, Dr. Perlstein reported that the drug not only controlled the spasms but had no undesirable side effects.

He said, "Meprobamate had a tranquilizing action which allayed apprehension and made the patient generally more calm and comfortable. Nursing was greatly simplified. The patients were conscious and communicative, could respond to simple commands and could make their needs known."

The doctor stated that the drug was usually effective within 10 to 15 minutes after administration and its effectiveness lasted from three to four hours. Meprobamate was more effective by injection than 10 times the dose given orally, he concluded.

POSTGRADUATE TRAINING FOR DOCTORS OFFERED

Nearly 1,500 postgraduate training courses for doctors will be offered during the coming year, it has been reported by the American Medical Association.

The courses, a part of a continuing educational program for physicians, will be given in 34 states, the District of Columbia, and Puerto Rico.

The report, which appears in the Journal of the American Medical Association, lists 39 subject categories which will be taught in 149 cities during the period Sept. 1, 1959 and Aug. 31, 1960.

Prepared by the Council on Medical Education and Hospitals, the purpose of the annual listing is to bring together in one place information secured about postgraduate courses to be offered in the year ahead.

According to Dr. Walter S. Wiggins, council secretary, the courses have three basic functions:

—To refresh practicing physicians in the various aspects of their basic medical education.

—To provide information on new developments in medicine.

—To stimulate further educational efforts by the participants.

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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

November, 1959

No. 11

FIGHT TUBERCULOSIS WITH CHRISTMAS SEALS



ON LETTERS AND PACKAGES

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TUBERCULOSIS CONTROL IN NORTH CAROLINA ACTIVITIES OF THE TUBERCULOSIS CONTROL SECTION, DIVISION OF EPIDEMIOLOGY

By William A. Smith, M.D.

N. C. State Board of Health, Raleigh, N. C.

1—GENERAL

Tuberculosis is defined as, "an infectious disease caused by the mycobacterium tuberculosis (tubercle bacillus) and characterized by the formation of tubercles in the tissues. These tubercles may undergo cheese-like breakdown and tend to spread in all directions through the lungs, especially by means of the bronchial tubes. Infection may also be disseminated throughout the body through the lymph vessels and blood vessels. It is attended by symptoms which are primarily due to the

large amounts of tuberculin produced by the tubercle bacillus. This "natural" tuberculin causes reactions throughout the body very much like the familiar skin test but on a vaster and more destructive scale. When not strictly localized, the general symptoms of septic infection are present, such as hectic fever, increasing emaciation and night sweats."

Tuberculosis has always been recognized as a severe devastating disease, accompanied in most cases by a long period of disablement and inability to

perform work of any kind. It was once thought to be hereditary as it occurred in families. The occurrence in families was due to family crowding and poor knowledge of ordinary hygienic measures such as the disposal of infectious sputa, and proper precautions to take while coughing.

Public health had not advanced far in the early days of American Medicine and it was about 1882 when Dr. Herman Biggs, Health Commissioner of the City of New York began distributing leaflets about the disease. In 1893 he set up the first municipal laboratory to aid in diagnosing tuberculosis.

In 1900 tuberculosis ranked second among the causes of death in the United States; pneumonia and influenza were first and heart disease third.

Today tuberculosis is not among the first 10 causes of death in North Carolina. In the age group 15-24 years, however, it is the 10th cause of death. In 1904 there were 150,000 deaths from this disease in the United States and 1,500,000 active cases. To treat this huge number of cases there were only 9,000 beds available in this country.

The tuberculosis situation in North Carolina was brought forcibly to the attention of the State Medical Society in 1904 by Dr. Richard H. Lewis, then State Health Officer. The year, 1904, may be considered as the time when the State as a whole began to take notice of the seriousness of tuberculosis as a health and economic menace.

Since 1904 efforts in this State to control tuberculosis have gone far; there are now over two thousand State controlled beds for treatment; 762 Federal beds (1957); 66 counties are served by chest clinics which are attended by a chest specialist; all the 100 counties have an organized health department; 81 counties have 14 x 17 x-ray facilities; one county has a 4 x 5 x-ray machine but no 14 by 17 apparatus and 18 counties have no x-ray facilities and must depend on local hospitals or local physicians for x-ray services. The State Board of Health owns 6 mobile x-ray units for conducting chest x-ray surveys, however, only

four are used actively on account of insufficient personnel to operate these units; but on occasion when the unit is located in a permanent place and driving the unit is not required, a female technician is called on to operate the unit. In addition to the six units the Tuberculosis Control Section operates a follow-up trailer equipped to take 14 by 17 x-rays during field surveys and also an office trailer for conducting administrative work incident to field surveys. Our field equipment is, therefore, self sufficient and during community wide surveys it is not necessary to call on health departments for office space.

2. TUBERCULOSIS CONTROL PROGRAM

A well integrated tuberculosis control program must include certain services. These are case finding, clinical, nursing, hospital, health education, laboratory, rehabilitation, vital statistics and welfare. Case finding is said to be the keystone of tuberculosis control and chest x-ray surveys the spearhead of the attack on tuberculosis.

The Tuberculosis Control Section in this State Board of Health is essentially a case finding agency and conducts case finding through chest x-ray surveys of the general population and special groups and through cooperation in tuberculin testing projects such as:

- (1) The Pamlico County Tuberculosis Pilot Study
- (2) The tuberculin testing project of Negro 1st grade children in Martin County.

In addition to case finding this Section has initiated the organization of county chest clinics. This has been done in cooperation with the Section on Radiation-Chronic Diseases and the Sanatorium System. The Chief, Tuberculosis Section regularly attends certain of these clinics. Since mid 1956 clinics have increased from 28 counties being served by such clinics to 66. This Section during the past fiscal year aided in the support, both financially and through supplies, to 14 clinics.

In mobile surveys we have emphasized-

ed those groups where tuberculosis is more prevalent such as:

1. The older age group; Chart I shows a comparison of cases found by age in 1948 and 1958

2. The Negro population, which has a death rate of 10.9 per 100,000 population or 3 times the white death rate of 3.5; and a case rate of 75.5 or over 3 times the white rate of 23.3

3. Low income groups.

4. Migrants. This is a floating population and is difficult to contact.

5. Tuberculosis contacts

6. Mental hospitals and inmates of prison camps and prisons.

During the past few years there has been considerable interest among officials in these institutions towards tuberculosis control and the rate of new cases found in most of these institutions has steadily decreased during the past 10 years.

The floating population of jails undoubtedly will show a high prevalence. This is a difficult population to examine and so far as is known there has been no concerted effort in this State to make routine chest x-ray examinations of these inmates.

3—GENERAL ACTIVITIES AND ACCOMPLISHMENTS

This Section has now been operating since July 1945. Operations on a large scale began July 1946. Since activation our mobile x-ray units have x-rayed 3,270,004 persons and have, up to June 30, 1958 detected 13,811 tuberculosis "suspects." As 60%-80% of these "suspects" turn out to be clinical tuberculosis it can be seen that chest x-ray surveys have been profitable.

In the early days the turn out for chest x-rays was high. In one of the eastern counties in 1947 there was a turn-out of 88% of the population 15 years and over, and in a county in the Piedmont area the turn-out was 86%. At this time the short intensive survey is more popular. In fact a survey of this type generally gives a yield higher per unit than the longer survey, (see Chart II comparing 8 N. C. counties). This chart shows that in five

of the eight counties in which there was a short intensive survey the yield per unit was higher than the yield per unit during the longer survey; in two surveys the more extensive survey showed a higher yield per unit than in the survey of a shorter length of time, and in one county the yield per unit in each type survey was about the same.

It has been said that unless the number of active tuberculosis cases found during surveys is less than 7 per 10,000 that surveys are not profitable.

Findings in our surveys vary according to location. In a survey of over 15,000 persons in industry the rate for active cases was 1 person in every 7,500 examined and inactive findings were 1.1 person per 1,000 examined.

In a rural-urban community the active rate was 0.65 per 1000 persons x-rayed and in a strictly rural community the active rate was 2.4 per 1000.

All findings were in persons 20 years and over and the rate calculated according to that age group. No persons under 20 years were found to have tuberculosis.

During the past 4 years there has been a steady decrease in the number of tuberculosis "suspects" found per 1000 x-rayed. There has, however been an average of 1150 such suspects found per year during the 12 year period from July 1946.

Some authorities consider only active cases in determining the success of a chest x-ray survey. This is a mistake and it must be remembered that many old inactive cases reactivate and inactive cases must be periodically observed.

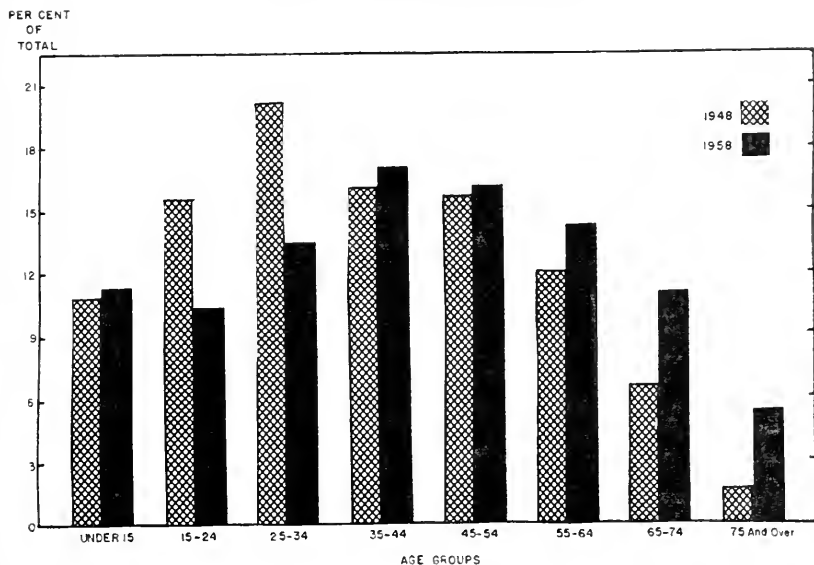
(a) TUBERCULIN TESTING PROJECTS

During 1958-1959 the (1) Martin County Tuberculin Testing Project of 1st grade Negro children and (2) the Pamlico County Pilot Study deserve special comment.

(1) In Martin County the work was conducted by the Health Department, Dr. W. A. Browne, Health Director and the skin testing was supervised by Miss

CHART II

PER CENT OF TUBERCULOSIS CASES BY AGE GROUPS:
NORTH CAROLINA, 1948, 1958



SOURCE: PHSS

6/59

M. L. Taylor, Public Health Nurse. The follow-up x-ray activities were conducted by this Section. Old tuberculin 1-2000 was used for skin testing and results were as follows:

Number Negro 1st grade children tested	361
Number positive	21

Of the positive children, 3 were diagnosed as primary active tuberculosis. All families of positive children were visited and one adult was found to have active reinfection tuberculosis. A three year old sister of a positive school child had active primary tuberculosis. There were, therefore, 4 active primary cases and one active adult reinfection case found as a result of testing 361 1st grade children.

(2) **THE PAMLICO COUNTY PILOT STUDY.** This study in Pamlico County with generally a stable population of less than 10,000 persons began in No-

vember 1956 and will continue into 1961, or for a 5 year period. This is a cooperative study engaged in jointly by the Pamlico County Health Department, the North Carolina Tuberculosis Association, the U. S. Public Health Service, the State Sanatorium System and this Tuberculosis Control Section. The project was the idea of Dr. W. M. Peck, then Assistant-Superintendent, Medical Director, Central Sanatorium at McCain. It was his plan to tuberculin test an entire county and pinpoint every case of tuberculous infection in the county. Through Dr. Peck's efforts other health agencies became interested and a State Coordinating committee consisting of physicians and other health workers was organized to formulate general policies.

The USPHS furnished personnel consisting of nurses and statisticians and this group headed by Dr. Lydia B. Ed-

wards has rendered invaluable aid during the surveys of 1956, 1957, 1958 and 1959, and without this aid the study could not have progressed. Dr. Edwards composed the Protocol page 8.

Dr. David T. Smith, Duke University School of Medicine, is Chairman of the State Coordinating Committee and other members are Dr. H. S. Willis, State Sanatorium System; Dr. L. E. Kling, Health Director, Pamlico County; Dr. J. B. Warren, Oriental; Mr. Scott Venable, Executive Secretary, N. C. Tuberculosis Association; Dr. W. M. Peck, Chairman of the Medical Advisory Committee; Dr. W. A. Smith, N. C. State Board of Health; Mr. C. J. McCotten, Sanitarian, Pamlico County Health Department; also other personnel from the State Board of Health.

School children were skin tested in 1956 and 1958; a county wide chest x-ray survey was conducted during the spring of 1957 and spring of 1959. In addition to skin testing with 5 TU PPD-S certain non-specific antigens were used, namely Avian, Nocardia, Balnei, Phlei and Battey.

The total number of individuals in

the county who participated in 1956-1957 surveys was 7,174. The total number of individuals who participated in the 1958-1959 survey has not as yet been determined but a grand total of 12,393 skin tests and chest x-rays were given to a survey population of 9,976 in 1956/57 and a grand total of 10,192 skin tests and chest x-rays given to approximately the same population in 1958/59. This shows a fine cooperative spirit.

The Protocol for skin testing and x-ray program for April 18-May 18, 1959, is noted after findings:

Some interesting observations so far are:

(a) Percent school children skin tested and read:

	1956	1958
White children	94.9	86.2
Negro children	93.5	81.9

Note: Both the patch test and Mantoux tests were used in 1956. Cause of decreased number of participants in 1958 was due to an epidemic of measles principally; a few refused the test.

(b) Per cent school children 19 years and under with skin reactions 5 mm or more to 5 TU PPD-S:

White children	9.1
Negro children	20.8

CHART II
 PERSONS X-RAYED PER UNIT DAY IN MASS SURVEYS
 IN EIGHT NORTH CAROLINA COUNTIES
 ACCORDING TO YEAR OF SURVEY

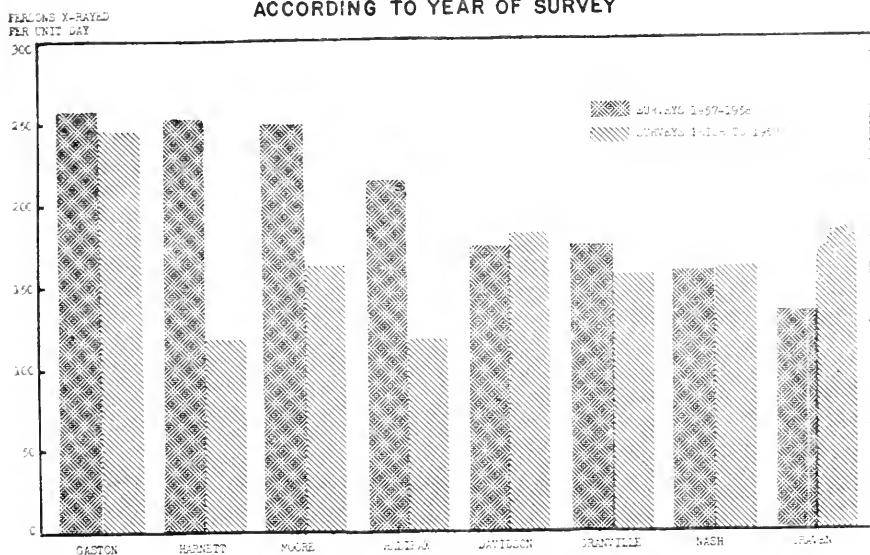


FIGURE 2-2-55

*(c) Per cent children 19 years and under (pre-school and school) with skin reactions 6 mm or more to 5 TU PPD-S:

White children	6.5
Negro children	13.9

*(d) Per cent children 19 years and under (pre-school and school) with skin reactions 12 mm and over to 5 TU PPD-S:

White children	1.5
Negro children	5.9

*(e) Per cent of population, including pre-school and school children, with skin reactions of 6 mm and more to 5 TU and/or 100 TU PPD-S; also per cent under 6 mm to 5 TU

WHITE		
6 mm or more to 5 TU	Under 6 mm to 5 TU	6 mm or more to 100 TU
21.0	79.0	67.0
NEGRO		
6 mm or more to 5 TU	Under 6 mm to 5 TU	6 mm or more to 100 TU
33.6	66.4	74.4

(f) Number of new reinfection cases of tuberculosis found during the study—15. All cases were found during the survey of 1957; no childhood cases found.

**Active	9	rate per 1000 active cases—2.2
Inactive	6	Inactive rate per 1000 1.4
Total Clinical (new)	15	

*b, c, d, e from 1956-1957 survey

****One inactive case in 1957 reactivated. Rate is based on persons 20 years and over x-rayed.**

Note. Size of skin reaction measured across the skin wheal at the site of the injection.

PROTOCOL PAMLICO COUNTY SKIN TESTING AND X-RAY PROGRAM APRIL 18-MAY 18, 1959

I. PURPOSE

- A. Annual testing of the adult population—part of the 5-year epidemiological study program.
- B. To continue study of reactions of Battey antigens in relation to PPD-S among adults.

II. GENERAL PLAN:

- A. Three times during the 5-year study period a combined x-ray and skin testing survey of the adult population is planned. This is the second adult survey.
- B. Prior to the survey, a house to house visit will be made urging all adult residents of the county to come in for skin tests and x-ray.

III. PARTICIPANTS:

A. SKIN TESTS

1. All adults should be retested except those who had very strong reactions to the prior tuberculin test.

Strong reactions to PPD-S, 5 TU are defined as follows:

- a. A systemic reaction
- b. Induration of 25 mm or more
- c. Surrounding edema of 40 mm or more
- d. Erythema of 50 mm or more and induration of 20 mm or more

IV. PRODUCTS TO BE USED:

Antigen
Tuberculin, PPD-S
PPD-B (A 100616)

Dosage
0.0001 mg (5 TU)
0.0001 mg (5 TU)

Color Identification
Red
Blue

V. TESTING SITES:

PPD-S—LEFT, forearm; outer upper third of volar surface
PPD-B, RIGHT, forearm; outer upper third of volar surface

- e. Regardless of size of induration, if bulla, vesicles or hemorrhagic reactions were present

2. School children

- a. "Converters" or "Reverters" to the 1958 tuberculin tests who had **not** received a Battey test in 1958 will be asked to come in for repeat tests with both PPD-S and PPD-B. (These children should not be retested, at this time, if they had strong reactions as defined for adults.)

- b. All other school children will be retested at next regular school testing program.

3. Preschool children (1 year and over)

If not previously tested or if previously negative, they may be skin tested at this time.

B. X-RAYS

1. All individuals 15 years and over will be x-rayed in the mobile unit (70 mm).

2. All children under 15 years who are scheduled for X-rays should have a 14" X 17" film at the Pamlico County Health Department, namely:

- a. Children who were converters to PPD-S, 5 TU in 1958 test program
- b. All other children who, at any time, had 6 mm and over to PPD-S, 5 TU.

VI. TESTING PLAN:

- A. The Pamlico County Health Department nurses will be responsible for the testing.
- B. There will be only one testing line.

Either two testers will each give one product, or one tester will give both products. If two nurses are giving the tests, then they should change positions at regular intervals so that each day approximately half of the tuberculin tests and half of the Battey tests are given by each nurse.

- C. The testers will make notes on the cards (in pencil) in case of error in administering the tests or error in variation of the sites.
- D. Nurses should post the date of use on each antigen bottle and save the used bottle until the Supervisor indicates they may be thrown out.

To quote from Dr. Peck, Chairman of the Medical Advisory Committee:

"Testing with strong PPD-S 100 TU and non-specific antigens indicate that many weak tuberculous reactions actually may not indicate tuberculous infection, as formerly thought, but indicates that there are many tuberculous like organisms in nature which may cause false positives, although they rarely cause disease themselves. These findings are turning out to be the most important part of the study since interpretation of the tuberculin test itself, and its proper application is be-

ing clarified. The study is receiving International recognition and the U. S. Public Health Service recently referred to the Pamlico findings in an International Medical Journal, (*Acta Tuberculosea Scandinavica*)."

On completion of the study a complete report will be made. At this writing results from skin testing with non-specific organisms have not been evaluated.

b. Chest x-ray surveys.

During the fiscal year 1958-1959 our mobile units entered 34 counties. This is the usual schedule for a 12 month period. Community wide surveys were conducted in 7 counties. During these community wide surveys the Section furnished follow-up technicians and clerical assistance as well as publicity materials and other publicity assistance. Follow-up services, publicity help and clerical assistance have been found to be invaluable during surveys. As an example, during a survey in Rockingham County in 1954 none of these services were furnished and no new cases of tuberculosis were found from almost 10,000 persons x-rayed. This county was again surveyed in October-November 1958 and services mentioned were furnished the county. The results of this survey were:

Total number of persons x-rayed	17,783
Patients referred to either their family physician or hospital for observation and treatment	
New active pulmonary tuberculosis	15
New inactive pulmonary tuberculosis	6
Lung cancer	2
Other lung disease which requires observation and treatment	11

c. IMPORTANCE OF PERIODIC FOLLOW-UP OF SCARS OF THE LUNG AND SUSPECTED TUBERCULOSIS

The importance of periodic follow-up of persons who show pathology in chest surveys was shown in a survey of one of the eastern counties in 1950 and in a survey of a county located in the central part of the State in 1954.

In the Eastern county 92 reportable cases were eventually reported as a result of the survey, 83 of these cases were reported in 1950 and early in 1951 and 9 cases were reported from 2 to 7 years later. These cases were:

YEAR	CASES	1950 diagnosis	Final diagnosis
1952	1	Def. tuberculosis from 70 mm film; did not return for large plate	Far adv. active tuberculosis
1954	2	1 case—scar 1 case—suspicious	1 case far adv. inactive 1 case far adv. active
1955	3	2 cases—scars 1 case—Non-TB	1 case far adv. inactive 1 case far adv. active 1 case min. active
1956	1	1 case—scar	miliary
1957	2	2 cases—scar	1 case pleural effusion 1 case mod. adv. active
Total		9	

It will be seen that 8 of the 92 reportable cases had "delayed" diagnoses from 2 to 7 years following the survey and an additional case who failed to cooperate had far advanced active tuberculosis 2 years later.

In a 1954 survey in the central part of the State, 41 persons showed reportable lung pathology:

- 17 active reinfection tuberculosis
- 15 inactive reinfection tuberculosis
- 7 other pulmonary diseases
- 2 primary active tuberculosis

Thirty seven of these cases were definitely diagnosed in 1954-1955. Four cases were diagnosed from 2 to 6 years following the survey. Of these 4 cases:

- 2 were diagnosed during the survey as suspected tuberculosis and
- 2 as other lung pathology, negative for tuberculosis.

Of the two cases diagnosed as suspected tuberculosis both were diagnosed as moderately advanced active tuberculosis in 1956 and in 1958 respectively.

Of the two cases diagnosed as Non-TB. Pathology:

- 1 was diagnosed in 1956 as primary active tuberculosis and
- 1 as minimal active in 1956.

In this survey almost 10% of the cases had a "delayed" final diagnosis from 2 to 4 years following the survey.

These two surveys show the importance of periodic follow-up of those cases who show pulmonary scars or suspected tuberculosis on the first film reading.

d. General Comment Mobile X-ray Surveys

The extended survey of the general population using sufficient mobile units to x-ray all x-rayable persons 15 years and over within a period of 30 days or less is no longer a popular case finding procedure. Health Departments prefer 2 to 3 and sometimes 4 units for a period of one month or 20 working days. This type survey is less expensive, and has less detail for the health department and the units can concentrate on areas of high prevalence alone. Tuberculosis findings from mobile surveys have been steadily decreasing during the past 4 years. However, with a strong publicity campaign particularly in areas which have not had a community wide survey at all or any sur-

vey for some years, cases of pulmonary tuberculosis as well as other chest diseases are found in appreciable numbers. The Rockingham County survey is cited as an example when active cases found were 0.82 per 1000 persons x-rayed, new inactive tuberculosis 0.46 and in addition 2 cancers of the lung, also 11 additional persons showed lung trouble which required the care of a physician.

Case finding through mobile x-ray units is one of the 4 principle case finding measures. Other such measures are:

1. Doctor's offices and clinics
2. General and other hospitals. In these cases the patient is admitted for an injury or disease and tuberculosis is found through routine chest

x-ray.

3. Health departments through the routine chest x-ray of food handlers, other persons who require a health card, pre-natal clinics and the follow-up of old cases.

4. RADIATION HAZARDS

Radiation hazards from chest x-rays have been widely publicized during the past few years. "The most important thing in understanding radiation hazards is to see them in their proper perspective. First, it is vital for us to realize that radiation properly used represents a tremendous boon to mankind and it is to our advantage to encourage rather than to discourage its use. It is also important for us to realize that in speaking of radiation we are speaking of a vast gamut of varying dosages which differ greatly in their significance and it becomes apparent that the radiation incident to good case-finding procedures is minimal and of little significance in comparison to the tremendous importance of case-finding results. The horror that we experience from contemplating the atomic bomb or the possibility of unrestricted use of dangerous sources of radiation in industry must not be carried over into our evaluation of the minute amounts of radiation exposure in case finding by chest x-ray," (Dr. W. M. Peck, N. C. State Board of Health)

Geneticists say that gonadal exposure should not exceed 14 roentgens or 14,000 milliroentgens by age 30 and one third that amount in each decade thereafter. We know that at present one accumulates during this 30 year period an exposure of about (a) 4 roentgens from background, (b) 4 roentgens, on the average, from medical and dental x-rays and (c) 0.1 roentgen from fall-out. This leaves a comfortable margin of 5.9 roentgens as additional security. One x-ray of the chest from one of our mobile x-ray units gives a dosage to the gonads of less than 0.005 roentgens or less than 5 milliroentgens. As a person up to age 30 has a margin or reserve of 5.9 roentgens or 5,900 milliroentgens, it follows that he may have many x-rays of the chest from one of

our mobile units before age 30 before he will approach the maximum dosage.

While recognizing the hazards of case-finding as slight or possibly non-existent, there remains sufficient question to warrant certain precautions. (1) All equipment should be checked for conformity to accepted standards and technicians should wear film badges. (2) Fluoroscopy as a case-finding procedure is no longer recommended. (3) Children under 15 should not be admitted for routine examination to the mass survey. (4) Protection should be given the gonads by coning or by providing lead shielding. This is especially important in children whose chest x-rays, unfortunately and quite needlessly, often include the abdomen, pelvis and gonads. (5) Other recommendations are those that have been regarded for several years as means for improving the case-finding efficiency procedure itself.

(a) Concentrate surveys on the populations most apt to have tuberculosis i.e., prison inmates, old age groups, institutional groups, low income groups.

(b) Tuberculin testing should be applied to groups sufficiently disciplined and available for the purpose, such as school children, and food handlers. In some such adult groups, however, initial x-ray examination is still justified by the expected non-tuberculous pathology.

(6) Ex-patients or those requiring frequent examination should be examined by the standard 14 x 17 film technique rather than by the photofluorogram.

(7) It must be recognized that medical judgment is paramount as to type of examination and frequency of various roentgenographic examinations. The radiologists have become exceedingly alert to the problems at hand and are performing an important service in reducing the unnecessary radiation.

(8) Findings in terms of non-tuberculous pathology may be sufficient to justify the procedure in some areas of low incidence of tuberculosis. This can be determined on an individual basis.

The guiding principles that unify the policy of the U. S. Public Health Service as it bears upon tuberculosis case finding activities are:

1. "Mass radiography of the chest, operated under competent auspices, is a fundamental technique in the detection of tuberculosis.
2. "Mass x-ray casefinding should be applied selectively in groups at high risk of tuberculosis infection and disease.
3. "All tuberculosis x-ray survey programs should have the prior

approval of the applicable State or local health department.

4. "Consideration should be given to the tuberculin test as an initial screening device in low prevalence groups.
5. "Every community should evaluate on a continuing basis its tuberculosis problem, needs and resources, so that local x-ray surveys may have efficient use and maximum effect.
6. "Adequate safeguards should be utilized to protect all persons from unnecessary radiation."

5. MORTALITY AND MORBIDITY

MORTALITY (DEATHS) UNITED STATES

1957 In 1957 13,971 persons died from tuberculosis in the United States and territories. This was a decrease of 872 deaths as compared to the previous year, 1956. The death rate per 100,000 population in 1957 was 8.1; death rate 1956, 8.7.

MORBIDITY (CASES) UNITED STATES

1958 In 1958 there were 86,848 new tuberculosis cases reported for the first time in the United States and Territories. This was a decrease from 91,151 cases reported in 1957 of 4,303.

For the past 5 years deaths and new cases in the United States and Territories have steadily decreased and the decrease in deaths has been in greater proportion than the decrease in cases.

UNITED STATES

	DEATHS	NEW CASES REPORTED
1953	20,599	113,531
1954	17,379	106,526
1955	15,611	104,515
1956	14,843	95,583
1957	13,971	91,151

Percentage decrease in deaths: 32.1

1957 as compared to 1953

Percentage decrease in cases: 19.7

1957 as compared to 1953

1958 Death rate from tuberculosis not available for United States as a whole. The 1958 case rate has been published and is noted under Morbidity.

6. MORTALITY (DEATHS) NORTH CAROLINA

In 1958, 239 persons died from tuberculosis in North Carolina; this was an increase of 13 deaths over 1957. The death rate per 100,000 persons is 5.4. The death rate for the United States and Territories for 1958 has not been determined but the death rate for 1957 was 8.1; the death rate for North Carolina during the same year, was 5.1. North Carolina has had a death rate less than the National rate since 1939. The death rate in this State is less than any other State east of the Mississippi River except Wisconsin and New Hampshire. In 1957, Utah had the lowest death rate of any State in the United States, death rate 2.0 per 100,000 population. During 1957 there were only 17 deaths from tuberculosis in that State.

MORBIDITY (CASES) NORTH CAROLINA

In 1958, 1635 new cases of tuberculosis were reported in North Carolina. This was a decrease from the previous year when 1651 cases were reported; decrease 16 cases. In 1958 the case rate for North Carolina active and probably active cases, was less than any other State east of the Mississippi except Wisconsin, Maine, New Hampshire, Rhode Island and Connecticut. The case rate for North Carolina, active and probably active cases for 1958, 26.3; for United States and Territories, 37.4.

NORTH CAROLINA**DEATHS NEW CASES REPORTED**

1916	3577	
1954	311	2013
1955	258	1950
1956	263	1850
1957	226	1651
1958	239	1635

GENERAL TUBERCULOSIS SITUATION IN NORTH CAROLINA

Tuberculosis is one of the public health and hospital care problems in North Carolina. During 1958 public health nurses visited 7,959 cases of diagnosed cases of tuberculosis and the **total number** of visits made to diagnosed tuberculosis cases was 28,700. The total number of visits for tuberculosis, (to or in behalf of cases, suspects and contacts during the year) was 76,865. These visits exceeded the same type visit for 1957 by 650 to **diagnosed** cases of tuberculosis; were 329 less in **total** visits to diagnosed cases and 1418 more to known cases, contacts and suspects. The nursing problem in so far as the care of tuberculosis is concerned was somewhat greater in 1958 than during 1957.

The question has been asked often as to the exact or approximate number of tuberculosis cases in North Carolina.

It has been estimated that in the United States as a whole, there were in 1956, 1,200,000 persons who once had tuberculosis but do not require supervision and there were 800,000 cases who

did require supervision; total cases plus persons who once had tuberculosis 2,000,000. North Carolina has about 1/40 of the total population of Continental United States and if we consider that tuberculosis is fairly well distributed it means that there are in this State about 50,000 persons who once had tuberculosis. Of this 50,000 it has been estimated that 6,000-7,000 are active cases; 12,000-14,000 inactive or a total of probably 18,000-21,000 cases in the State who require supervision. This is only an estimate and based on the general tuberculosis situation in the entire country. These figures may not be completely correct in so far as North Carolina is concerned. The important thing in the tuberculosis situation is that for the past five years the number of already diagnosed tuberculosis cases in North Carolina visited by public health nurses has ranged from 8,000 to slightly over 9,000 a year.

Tuberculosis is an expensive disease. It has been estimated that a hospital case costs the public about \$14,000. This cost includes lost wages, physician, nurse and hospital care, aid to the family and other expenses.

TUBERCULOSIS PUBLIC HEALTH NURSING SERVICES

	1957	1958	Increase or decrease 1958 over 1957	
1. Total number of diagnosed tuberculosis cases visited during the year:	7,309	7,959	650	Increase
2. Total number of visits made to diagnosed tuberculosis cases during the year:	29,029	28,700	329	Decrease
3. Total number of visits for tuberculosis (to or in behalf of cases, suspects and contacts) during the year:	75,447	76,865	1418	Increase

During the past ten years 16,146 new active cases have been reported to the State Board of Health; 4,593 persons have died from tuberculosis during this period. The decrease in active cases over the period is 43% and the decrease in deaths 75%. The decrease in cases, therefore, is much less than the decrease in deaths which means that tuberculosis still presents a severe public health problem.

If present trends persist, the number of tuberculosis cases will continue to decline. Tuberculosis is said to be under control when the death rate is 5 or under per 100,000 population and 5% or less of the school population have positive tuberculin tests (Dr. David T. Smith, N. C. Health Bulletin December 1955). Certain States are approaching this goal of control. In North Carolina extensive tuberculin testing projects

are being conducted and during 1958, 57,990 children were tested and 8,926 were positive. This is an increase of 12,000 tests as compared to 1957. With improved case finding measures as is being conducted in many counties, notably Martin and Pamlico, selective chest x-rays surveys, stimulation of routine chest x-rays of hospital admissions and clinic cases as well as routine chest x-rays in the routine office practice among private physicians, there should be better case finding and the active tuberculous case who is spreading the disease should be detected and hospitalized before more spreading is done. The general tuberculosis situation in North Carolina is steadily improving. Tuberculosis, however, will always be with us so long as there is no vaccine or drug which will render the tuberculin positive person negative.

RESIDENT TUBERCULOSIS CASES BY COLOR WITH RATES PER 100,000 POPULATION: NORTH CAROLINA AND EACH COUNTY, 1958

Area	Total		White		Nonwhite	
	No.	Rate	No.	Rate	No.	Rate
North Carolina	1,635	36.6	774	23.3	861	75.5
Alamance	26	31.5	15	22.3	11	71.8
Alexander	6	38.8	4	27.9	2	180.7
Alleghany	3	37.5	3	38.6		
Anson	6	23.6	5	38.0	1	8.2
Ashe	2	9.4	2	9.5		
Avery	3	22.8	3	23.0		
Beaufort	12	31.8	6	25.2	6	43.1
Bertie	19	71.3	6	59.7	13	78.4
Bladen	12	37.7	4	21.4	8	61.1
Brunswick	6	28.6	5	38.7	1	12.4
Buncombe	40	29.1	27	22.0	13	89.3
Burke	3	5.9	2	4.2	1	27.8
Cabarrus	19	28.2	15	26.0	4	41.1
Caldwell	13	26.2	12	25.9	1	30.6
Camden	1	19.8			1	54.5
Carteret	14	51.9	11	46.0	3	97.6
Caswell	8	37.1	3	27.4	5	47.2
Catawba	7	10.0	4	6.2	3	50.4
Chatham	5	19.3	4	22.7	1	12.0
Cherokee	5	28.0	5	28.6		
Chowan	3	22.5	1	12.8	2	36.4
Clay	1	17.6	1	17.8		
Cleveland	14	20.1	7	12.8	7	46.4
Columbus	13	23.8	6	16.9	7	36.4
Craven	46	72.7	17	37.0	29	167.5
Cumberland	50	39.6	23	24.4	27	83.9
Currituck						
Dare	1	20.5	1	21.9		
Davidson	14	20.1	9	14.3	5	73.4
Davie	7	44.2	6	43.8	1	47.0
Duplin	18	42.7	7	26.8	11	68.7
Durham	45	37.7	20	24.7	25	65.5
Edgecombe	38	70.8	13	48.6	25	92.8
Forsyth	76	46.8	30	24.9	46	110.4
Franklin	16	49.8	8	47.6	8	52.2
Gaston	36	27.7	29	25.6	7	41.7
Gates	6	65.6			6	118.1
Graham	4	55.0	3	42.8	1	381.7
Granville	5	14.8	2	10.5	3	20.3
Greene	19	107.9	5	55.9	14	161.8
Guilford	42	18.9	20	11.1	22	52.9
Halifax	49	81.8	10	38.3	39	115.4
Harnett	40	79.4	15	39.8	25	196.8
Haywood	10	25.0	10	25.5		
Henderson	22	63.0	18	54.7	4	198.7
Hertford	14	60.4	1	10.9	13	92.7
Hoke	11	66.9	3	45.5	8	81.3
Hyde	1	18.7			1	43.2
Iredell	15	24.5	5	9.8	10	96.7
Jackson	1	5.2	1	5.7		
Johnston	30	44.3	15	28.5	15	99.9
Jones	7	63.2			7	135.7
Lee	7	25.5	1	4.8	6	88.8
Lenoir	25	50.1	6	21.1	19	88.5
Lincoln	6	19.9	5	18.8	1	27.5
McDowell	5	17.9	5	18.6		
Macon	6	36.6	5	31.0	1	370.4
Madison	8	42.4	8	42.8		
Martin	26	88.3	3	21.1	23	151.0
Mecklenburg	64	27.3	28	15.7	36	64.9
Mitchell	5	34.6	5	34.7		
Montgomery	5	27.7	2	14.4	3	72.6
Moore	12	34.4	6	22.7	6	70.3
Nash	39	61.4	8	22.6	31	114.2
New Hanover	18	23.7	5	9.3	13	58.7
Northampton	17	59.6	6	61.8	11	58.4
Onslow	19	30.7	10	18.6	9	110.0
Orange	16	36.5	8	23.6	8	80.9
Pamlico	4	39.1	2	29.8	2	56.8
Pasquotank	11	40.0	5	28.2	6	61.6
Pender	5	26.3	4	41.9	1	10.6
Perquimans	9	95.2	3	60.1	6	134.4
Person	23	96.6	9	58.4	14	166.7
Pitt	55	83.5	13	36.1	42	140.6
Polk	3	26.3	2	19.9	1	71.7
Randolph	11	19.7	9	17.4	2	46.6
Richmond	2	4.8	2	6.7		
Robeson	33	34.1	8	20.1	25	43.9
Rockingham	52	73.7	27	47.6	25	181.1
Rowan	18	22.4	13	19.2	5	39.1
Rutherford	9	19.1	6	14.4	3	56.5
Sampson	19	36.7	11	34.0	8	41.2
Scotland	14	48.5	6	37.1	8	62.9
Stanly	13	32.0	12	33.2	1	22.2
Stokes	8	38.9	8	42.2		
Surry	13	26.7	12	26.1	1	37.4
Swain	4	49.7	1	15.4	3	193.5
Transylvania	1	5.7	1	5.9		
Tyrrell						
Union	10	22.5	7	20.2	3	30.8
Vance	14	41.3	8	42.7	6	39.6
Wake	47	29.6	22	19.0	25	58.6
Warren	10	41.9	1	12.8	9	56.0
Washington	8	57.6	1	12.7	7	116.8
Watauga	3	16.2	1	5.4	2	166.7
Wayne	33	47.7	13	32.1	20	69.9
Wilkes	7	14.9	5	11.2	2	75.8
Wilson	43	74.1	18	51.1	25	109.4
Yadkin	4	17.1	4	17.9		
Yancey	6	38.6	6	39.1		
Unknown	1		1			

Source: Public Health Statistics Section
4/1/59

**RESIDENT TUBERCULOSIS DEATHS BY COLOR WITH RATES PER 100,000
POPULATION: NORTH CAROLINA AND EACH COUNTY, 1958**

Area	Total		White		Nonwhite	
	No.	Rate	No.	Rate	No.	Rate
North Carolina	221	4.9	105	3.2	116	10.2
Alamance	2	2.4	1	1.5	1	6.5
Alexander	2	12.9	2	13.9		
Alleghany	1	12.5	1	12.9		
Anson	1	3.9			1	8.2
Ashe	2	9.4	2	9.5		
Avery						
Beaufort	1	2.7			1	7.2
Bertie	2	7.5			2	12.1
Bladen	2	6.3			2	15.3
Brunswick						
Buncombe	13	9.5	10	8.1	3	20.6
Burke	2	3.9	1	2.1	1	27.8
Cabarrus	2	3.0			2	20.6
Caldwell						
Camden						
Carteret	1	3.7	1	4.2		
Caswell						
Catawba	1	1.4	1	1.6		
Chatham						
Cherokee						
Chowan	1	7.5			1	18.2
Clay						
Cleveland	1	1.4	1	1.8		
Columbus	1	1.8			1	5.2
Craven	4	6.3			4	23.1
Cumberland	7	5.5	5	5.3	2	6.2
Currituck						
Dare						
Davidson	1	1.4	1	1.6		
Davie						
Duplin	1	2.4			1	6.2
Durham	7	5.9	4	4.9	3	7.9
Edgecombe	6	11.2	2	7.5	4	14.9
Forsyth	8	4.9	2	1.7	6	14.4
Franklin	5	15.6	1	6.0	4	26.1
Gaston	9	6.9	6	5.3	3	17.9
Gates						
Graham	1	13.7	1	14.3		
Granville	2	5.9	1	5.2	1	6.8
Greene	2	11.4	1	11.2	1	11.6
Guilford	6	2.7	4	2.2	2	4.8
Halifax	8	13.4	4	15.3	4	11.8
Harnett	2	4.0	1	2.7	1	7.9
Haywood						
Henderson	1	2.9			1	49.7
Hertford	4	17.3			4	28.5
Hoke	1	6.1			1	10.2
Hyde						
Iredell	1	1.6	1	2.0		
Jackson						
Johnston	2	3.0	2	3.8		
Jones						
Lee	1	3.6	1	4.8		
Lenoir	7	14.0	1	3.5	6	27.9
Lincoln						
McDowell	3	10.7	3	11.2		
Macon	1	6.1	1	6.2		
Madison						
Martin						
Mecklenburg	4	1.7	4	2.2		
Mitchell						
Montgomery						
Moore	3	8.6	1	3.8	2	23.4
Nash	7	11.0	1	2.8	6	22.1
New Hanover	2	2.6	1	1.9	1	4.5
Northampton	6	21.0	3	30.9	3	15.9
Onslow	2	3.2	1	1.9	1	12.2
Orange	3	6.8	1	2.9	2	20.2
Pamlico	1	9.8			1	28.4
Pasquotank	2	7.3	2	11.3		
Pender						
Perquimans	4	42.3	3	60.1	1	22.4
Person	3	12.6			3	35.7
Pitt	6	9.1	2	5.6	4	13.4
Polk						
Randolph	1	1.8			1	23.3
Richmond	1	2.4	1	3.3		
Robeson	5	5.2	1	2.5	4	7.0
Rockingham	3	4.3	1	1.8	2	14.5
Rowan	3	3.7	1	1.5	2	15.6
Rutherford	2	4.3	2	4.8		
Sampson	1	1.9			1	5.2
Scotland	1	3.5	1	6.2		
Stanly	3	7.4	3	8.3		
Stokes						
Surry						
Swain						
Transylvania						
Tyrrell						
Union	1	2.2			1	10.3
Vance	3	8.9	1	5.3	2	13.2
Wake	6	3.8	4	3.4	2	4.7
Warren	2	8.4	1	12.8	1	6.2
Washington	1	7.2	1	12.7		
Watauga						
Wayne	6	8.7	4	9.9	2	7.0
Wilkes	2	4.2	2	4.5		
Wilson	10	17.2			10	43.8
Yadkin	1	4.3			1	96.2
Yancey	1	6.4	1	6.5		

Source: PHSS
8/31/59

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The

Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request

Entered as second-class matter at Postoffice at Raleigh, N. C. under Act of August 24, 1912

Published monthly at the office of the Secretary of the Board, Raleigh, N. C.

Vol. 74

December, 1959

No. 12

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HEALTH



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COLUMBUS, N. C.

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Tuberculin Testing Of School Children In Alamance County, North Carolina

By Annie V. Scott, M.D. (*) (**), Sidney S. Chipman, M.D. (*) (***), and
 Edward C. Curnen, M.D. (*)

Tuberculin-testing has been a routine practice in the pediatric services of the North Carolina Memorial Hospital since the hospital opened in 1952. The results of this experience within the hospital supported the well established concept that tuberculin-testing is an effective method of detecting the presence of tuberculous infection and prompted a search for records of tuberculin-testing performed elsewhere in the state. It was found that some

testing had been done in various localities, but the program varied widely in sampling and technique, with little attention to the aggregation or interpretation of data. It seemed appropriate, therefore, to conduct a more extensive program of tuberculin testing in order to explore further the applicability of the method and to obtain additional information concerning the incidence of tuberculous infection among children in North Carolina in relation to age, race and socio-economic factors. Efforts were subsequently made to determine also the source and course of infection in children with

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positive reactions.

In order to obtain direct evidence bearing on these questions, it was decided to investigate the school-age children of one county in North Carolina. It was recognized that no single county could be representative of the entire state. Limitations of staff and funds necessitated that the county be near Chapel Hill. Approval of the study and essential cooperation were readily granted by the Health Department and the Medical Society of Alamance County. Plans for conducting tuberculin tests in the schools of this county were developed and organized by pediatricians from the University of North Carolina and representatives of the Alamance County Health Department. Cooperation in the undertaking was also provided by other groups and agencies, including the Alamance County Tuberculosis Association, the county Woman's Auxiliary, the North Carolina State Board of Health and the Gravelly Sanatorium.

Members of the Alamance County Health Department assumed full responsibility for acquainting school authorities, parents and students with plans for the tests. They also sought permission from the parents of each child and made detailed arrangements in each school for the actual testing of the children whose parents had granted permission. The tests were conducted and interpreted by pediatricians from the University of North Carolina who were experienced in tuberculin testing. Staff to assist with the testing was provided by the county health nurses and included both nurses and volunteers from county organizations. Students from the Schools of Medicine and Nursing of the University of North Carolina also attended for instruction and provided assistance.

An individual tuberculin syringe and 25 gauge steel needle were used for each injection. This equipment had been sterilized prior to use in an autoclave at 15 pounds pressure for 15 minutes. The standard antigen used was PPD-S (purified protein derivative—standard) 0.0001 mg. injected intracu-

taneously in a volume of 0.1 ml. The reaction was read after an interval of 48 hours. Induration when present was measured and recorded. Induration measuring 0.5 cm. or more in diameter was interpreted as a positive reaction.

The County Health Department promptly notified parents of the results of the tests and assisted them to arrange for clinical and radiologic examination of children with positive reactions. The County Tuberculosis Association assumed responsibility for providing a 14 x 17 inch roentgenogram of the reactor's chest. These films were interpreted by a member of the Department of Radiology of the School of Medicine, University of North Carolina. The Alamance County Health Department also assumed primary responsibility for investigating all members of each reactor's family. In these families all children were initially given an intracutaneous tuberculin test. Roentgenograms of the chest were made of each adult and of each child with a positive tuberculin reaction. Additional diagnostic studies were made in all members of a household in which evidence of active tuberculous infection was found.

The scope and results of this investigation are summarized in the following tabulations. As shown in Table I, this investigation represented a cross-section survey of the school population spread over a period of three school years (1954-55, 1955-56, and 1956-57) with the exception of first-grade students, who were tested each year.

Between February 1, 1955, and February 1, 1957, the program of tuberculin testing was conducted in a population of 17,857 children who were registered in the schools of Alamance County. The distribution of successful and unsuccessful efforts to administer and read these tests is summarized in Table II. As shown in Table II, 15,486 students, or 87 per cent of the population under study, actually had the test completed (i.e., tuberculin injection and result determined).

In Table III the results of this testing are recorded. It will be noted that the totals vary slightly in different

tabulations. This variation is due to the fact that all data were not available for each student.

Among the 15,479 children with completed tests, 2.5 per cent were found to react positively. The incidence of positive reactions varied in relation to age, race and sex. In groups of children arranged according to age, the percentages with positive reactions were progressively greater with increasing age. As the children of various age levels were different individuals and not the same ones tested successively, it was not possible to conclude from these data the rate of conversion from negative to positive reactions in relation to age.

In corresponding groups at different age levels, the percentages with positive reactions were approximately two to two and half times greater in Negro children than in white children. It seemed possible that these differences were influenced by socio-economic as well as racial factors.

Among children of both races the incidence of positive reactions was similar in both sexes or slightly higher in males than in females of all age groups, with one exception. In Negroes from 10-14 years of age the percentage of positive reactors was notably higher in females, thus causing the overall incidence of positive reactions among Negro children to be somewhat higher

in females than in males. An increased incidence of active tuberculosis in Negro females at the age of puberty is a phenomenon which has been noted frequently and merits further study.

This investigation in Alamance County has demonstrated the feasibility of conducting tuberculin testing by the intracutaneous route on a large scale outside of the hospital environment. Valuable data on the incidence of tuberculous infection in Alamance County have been made available to the County Health Department. As a result of this investigation the county health authorities are now carrying out tuberculin testing by the intracutaneous method as a routine procedure in all children entering the first grade. They have also undertaken to retest children in other grades who previously had negative reactions, with a view to determining the rate of conversion from negative to positive reactions at different age levels. The surveillance of families in which tuberculous infection is known to be present has been expanded and facilitated. In addition to the practical benefits derived from it, this cooperative undertaking has been of educational value not only to students in the professional schools of medicine, nursing and public health, but also in the public schools and communities of Alamance County and perhaps elsewhere in the state.

Table I
Distribution of Tests by Year and Grade

Grade	Year		
	Feb. to April 1955	Nov. 1955 to Feb. 1956	Oct. 1956 to Feb. 1957
1	†	†	†
2			
3			
4			†
5			†
6			†
7			†
8	†		†
9			†
10		†	
11		†	
12	†	†	

Table II
Number of Students Tested and Distribution of
Tests According to Race and Sex

Test	Children	
	Race and Sex	Number
Complete (tuberculin injected and result determined)	White male	6,330
	White female	6,130
	Negro male	1,468
	Negro female	1,551
	Incomplete information	7
		15,486
Incomplete (tuberculin injected results not determined)		140
Total tested		15,626
Total not tested		2,231
Total children registered		17,857

Table III
Results of Tuberculin Tests in Relation to Age, Race, and Sex

Race	Sex	No. of children tested and percent with positive reactions			
		Age in years			6-20
		6-9	10-14	15-20	
White	Male				
	Number tested	2,307	2,913	1,110	6,330
	Per cent †	1.1	2.0	5.2	2.2
	Female				
	Number tested	2,220	2,816	1,094	6,130
	Per cent †	0.9	2.1	2.6	1.8
	Total M & F				
	Number tested	4,527	5,729	2,204	12,460
	Per cent †	1.0	2.0	3.9	2.0
Negro	Male				
	Number tested	595	608	265	1,468
	Per cent †	2.4	3.6	10.9	4.4
	Female				
	Number tested	573	676	302	1,551
	Per cent †	1.9	4.7	9.6	4.6
	Total M & F				
	Number tested	1,168	1,284	567	3,019
	Per cent †	2.1	4.2	10.2	4.5

Public Health Workers Are Honored

Seven individuals and one public health agency were honored by special awards at the 1959 annual meeting of the North Carolina Public Health Association, in Winston-Salem. The citations were as follows:

For outstanding service to public health in the State of North Carolina over a period of many years, the North Carolina Public Health Association has established the Watson S. Rankin Award. The Association confers this Award for 1959 upon DR. JOHN ROY HEGE.

Although his first experience in public health came immediately after his graduation from medical school in 1916, when he served as Assistant Health Officer in Davidson County, Dr. Hege did not commit himself fully to the field until 1924. It is appropriate to note that, in that year, he was recruited to public health by Dr. Watson S. Rankin, in whose honor this award is made. Dr. Hege became Health Officer of Forsyth County where he served for seventeen years until 1941. During this period he was instrumental in the unification of Winston-Salem and Forsyth County Health Departments and in securing financial support, as well as forming the Davie-Stokes-Yadkin Counties District Health Department for which he also served as Health Officer concurrently.

During World War II, Dr. Hege served his state and his nation as a commissioned officer in the United States Public Health Service, and as Director of the National Defense Emergency Area of North Carolina.

After this war service he returned to civilian life as District Director of Local Health Administration and Director of the Bureau of Vital Statistics and Epidemiology of the State Board of Health.

Dr. Hege could not, however, remain long away from his first love, local public health work, and in 1947 he became Health Officer of Cabarrus County where he continues to serve vigor-

ously today.

In recognition of his long, devoted and dedicated career in public health in North Carolina, the North Carolina Public Health Association takes pleasure in bestowing the Watson S. Rankin Award for 1959 on Dr. John Roy Hege.

For outstanding contributions to public health in North Carolina in the past year, the North Carolina Public Health Association has established the Carl V. Reynolds Award. The Association confers this Award for 1959 upon DR. FRED T. FOARD.

For his inspiring leadership in the effective administration of the poliomyelitis vaccination program.

For expanding and strengthening the occupational health program and successfully coordinating this program with those of industry, and state and local agencies.

For campaigning relentlessly to establish a state-supported home and farm accident prevention program.

For providing distinguished leadership in all facets of epidemiology to increase the scope of interest, quality of study and intensity of investigation.

For his unusual ability to encourage and inspire his associates, his success in attracting others to his field, his untiring efforts to improve the status of public health workers and in turn improve the quality of public health practice, the North Carolina Public Health Association takes pleasure in presenting Dr. Fred T. Foard with the Carl V. Reynolds Award.

For outstanding performance in public health practice in North Carolina during the past year, the North Carolina Public Health Association has established the Merit Award. The Association confers this Award for 1959 upon the RANDOLPH COUNTY HEALTH DEPARTMENT.

For its untiring efforts in developing a program with emphasis on Research, Education and Service, for its initiative

and leadership in developing plans for and participating in the Public Health Nursing Time and Cost Study, for its outstanding leadership in a mental health pilot project which has made valuable contributions toward defining the role of the public health nurse in her work with mentally ill patients and their families, for exceptional staff cooperation in these and other outstanding activities, the North Carolina Public Health Association takes pleasure in presenting Randolph County Health Department the Merit Award for the year 1959.

For outstanding contribution in the field of diabetes case-finding, the North Carolina Public Health Association wishes to confer this citation of Merit on MR. J. B. EDWARDS and MR. A. K. GLOVER, of the New Hanover County Health Department Laboratory.

They have shown remarkable comprehension of the problem of blood sugar determination in diabetes screening and have shown remarkable ingenuity in meeting it. They have developed simplified equipment for blood sugar determination, this equipment having been named—by others—the Glover-Edwards Glucose Test Kit. It involves an ingenious method for utilizing a simple device of their own invention to perform the functions of the elaborate and cumbersome clinitron. They have developed this in their spare time while working in the laboratory of the New Hanover County Health Department. This has been particularly remarkable because investigative work such as this is not ordinarily associated with small clinical laboratories at the local level.

They made this contribution in order to assist Dr. Davis in his proposed diabetes program; however, when representatives of the United States Public Health Service heard about it, they became so interested that they have made repeated trips to the New Hanover County Health Department and have checked this method against standard ones at Charlottesville and

in Washington, D. C. These USPHS officials have regarded the method as being of so much importance that they are now in the act of patenting the device in order to prevent its exploitation.

It is believed that this device will make diabetes detection practical for small health departments to carry out since the device is of such simple operation as to demand little in the way of technical training. Those who have worked with Mr. Edwards and Mr. Glover have noted the extreme cooperativeness in developing the equipment and in supervising its manufacture and in submitting it for use in public health work.

For their outstanding contribution in the field of diabetes case-finding, the North Carolina Public Health Association takes pleasure in presenting this citation of Merit for 1959 to Mr. J. B. Edwards and Mr. A. K. Glover.

For an outstanding contribution made in the field of radiological health, the North Carolina Public Health Association wishes to confer this citation of Merit on MR. CHARLIE R. BROWN, Sanitarian, State Board of Health.

Mr. Brown, while manning the radiological and air pollution exhibit of the North Carolina State Board of Health at the State Fair in Raleigh, observed that a wrist watch caused unusual high instrument readings. With characteristic alacrity he reported his finds, which initiated a chain of actions resulting in the examination of the watch by the Health Physicist in the Department of Physics at North Carolina State College and by the U. S. Atomic Energy Commission at Savannah River. These investigations disclosed that the watch dial was painted with Strontium 90 in violation of the licensing requirements of the Atomic Energy Commission.

This investigation further revealed that this was the first evidence of use of this non-licensed radioactive material in the United States for painting of watch dials and resulted in legal negotiations between the Atomic Energy

Commission and national corporations to enforce the ban on the use of this material for luminous watch dials.

His alertness in observing and recognizing an unusual situation, his dedication to the field of public health protection, and his interest in radiological health caused this problem to be presented to the attention of State and Federal officials; thereby making a significant contribution to the protection of the health of the people of North Carolina and of the United States.

For this outstanding contribution in the field of radiological health, the North Carolina Public Health Association takes pleasure in presenting this citation of Merit for 1959 to Mr. Charlie R. Brown.

For outstanding contributions in the advancement and promotion of public health in North Carolina by a person other than a professional public health worker, the North Carolina Public Health Association has established the Distinguished Public Health Service Award. The Association confers this Award for 1959 upon DR. JOHN ROBERT KERNODLE, Obstetrician and Gynecologist of Burlington, North Carolina.

Dr. Kernodle is past president of the North Carolina Cancer Society, was a member of the Governor's Commission for the Study and Control of Cancer, 1957-58, is Chairman of the Chronic-Illness Committee of the North Carolina Medical Society and a Commissioner of the Medical Society of the State of North Carolina.

Dr. Kernodle has been outstanding in the field of cancer in North Carolina and has given strong medical leadership to the activities of the North Carolina Chapter of the American Cancer Society. He has been active both inside the medical profession and with lay-organizations in promoting the idea that the successful treatment of cancer depends on its early diagnosis. In 1952, he was the key person in establishing the Alamance-Caswell Cancer Detection Center. The

first cytology clinic in North Carolina was set up at Duke Hospital under his direction.

Though tremendously interested and still a leader in the state and local cancer programs, Dr. Kernodle has moved into the area of chronic illness. As Chairman of the North Carolina Medical Society's Committee on Chronic Illness, he has earned recognition by the American Medical Association, Congressional leaders, state legislators and agencies for his contributions and leadership. He participated in the National Leadership Training Institute in preparation for the White House Conference on Aging, attended the first national conference of the Joint Council to Improve the Health Care of the Aging and presented the Guilford County survey of the chronically ill and aging to the National Committee on Aging in Washington, D. C. Stimulated by his interest and concern, his local county health department has initiated a program to include nursing care to the chronically ill in the home.

Dr. Kernodle also gave impetus and leadership to the organization of a maternal health clinic in the health department of his native county, Alamance.

For these and other outstanding contributions to public health of North Carolina, the North Carolina Public Health Association takes pleasure in presenting Dr. John Robert Kernodle with the Distinguished Service Award.

For contribution in the advancement and promotion of public health in North Carolina by a person other than a professional public health worker, the North Carolina Public Health Association has established the Distinguished Public Health Service Award. The Association confers this Award for 1959 upon MR. RODNEY M. LIGON, JR., Assistant Director, Institute of Government, Chapel Hill, North Carolina.

It was in large part Mr. Ligon's untiring efforts, patience and enthusiasm

which made possible the revision of the Public Health Laws by the 1957 Legislature. Without his valuable contributions, this would have been an almost impossible task.

The bulletin he originated and edits, "Public Health Bulletin", published by the Institute of Government, summarizes legal matters of interest and import to public health workers and has proved of considerable value in clarifying and emphasizing the legal aspects of public health.

As he has met with health directors, nurses, sanitarians and other groups, Mr. Ligon has repeatedly proved to be a valuable resource to health personnel in clarifying and simplifying the legal interpretations, limitations and responsibilities of each discipline as related to public health.

For his contributions in the legal aspects of public health in North Carolina, the North Carolina Public Health Association takes pleasure in extending the Distinguished Public Health Service Award for the year 1959 to Mr. Rodney Ligon, Jr.

Receive 25-Year Service Pins

The following received pins attesting to the completion of 25 years of service in the field of public health at the 1959 meeting of the North Carolina Public Health Association:

Mrs. Lillie Bell Barber, Guilford County Health Department

H. O. Bealmear, retired, Asheville

William C. Haas, New Hanover County Health Department

Earle C. Hubbard, Stream Sanitation & Hydrology Division, North Carolina Department of Water Resources

Minella Jones, Guilford County Health Department

Marley M. Melvin, Department of Public Instruction

Mary E. Morgan, Cabarrus County Health Department

Frank A. Nelson, Buncombe County Health Department

J. B. Pritchett, Banner Elk

Dewey D. Sanderford, Wake County Health Department

Eva Thomas, Richmond County Health Department

Louise M. Ward, University of North Carolina Medical School

Charles M. White, State Board of Health

To Conduct Radiological Health Seminar

The School of Public Health of the University of North Carolina will conduct its 6th Radiological Health Seminar at Chapel Hill, North Carolina, on January 25, 26, and 27. Instruction by means of lecture, laboratory and seminar sessions will extend from the basic phenomena of radioactivity to health department responsibilities for its control.

Among the speakers will be: Dr. Elda Anderson and Roy J. Morton of the Oak Ridge National Laboratory; Dr. Donald R. Chadwick, Executive Secretary of the Federal Radiation Council; Newton I. Sax of the New York State Health Department; and Doctors Norm Tellis, A. D. Wolff, and Henry Rechen of the U. S. Public Health Service. Inquiries may be directed to Professor Emil T. Chanlett, Department of Sanitary Engineering.

Notes and Comment

REPORT NEW INDEX SYSTEM FOR MEDICAL LITERATURE

The American Medical Association and the United States Public Health Services' National Library of Medicine in Washington have announced jointly that, beginning Jan. 1, 1960, they will institute a new program for the indexing of medical literature which is esti-

mated at 220,000 articles annually.

The new system, which calls for mechanizing the composition of the index itself, will not only speed up the reference service to physicians, but it will also be less costly.

Dr. F. J. L. Blasingame, executive vice president of the American Medical Association, said that this new joint

effort by a government agency and a professional society is "a revolutionary step in the speed-up of medical communications which, in the end, will benefit patients everywhere."

Dr. Frank B. Rogers, Washington, D. C., director of the National Library of Medicine, which was established by Congressional action in 1956, said the new operation would "lift scientific and medical documentation to new heights of efficiency and usefulness. Physicians will come to know eventually that the National Library of Medicine and the American Medical Association can jointly perform a real service to all who work close, hands and heart, to the problems of disease."

Here, briefly, is how the new indexing system will work:

1. The American Medical Association will discontinue publication of its "Quarterly Cumulative Index Medicus," compiled by the library staff. This Index served as an invaluable aid to physicians, teachers, editors and writers, students and libraries since it was started in 1916.

2. The "Current List of Medical Literature," published by the National Library of Medicine, will be expanded in coverage to include currently published medical periodicals not covered in the past by either the National Library or the A.M.A.

3. Beginning with the issue of January, 1960, the "Current List of Medical Literature" will appear in a revised format, using improved composition techniques, and will be renamed "Index Medicus." The new "Index Medicus" will be published monthly by the National Library of Medicine and will be available on a subscription basis through the Superintendent of Documents, Government Printing Office.

4. The A.M.A. will publish annual cumulated volumes of the new index, which will be known as the "Cumulated Index Medicus," beginning with the volume for the calendar year 1960. The A.M.A. will bear the cost of publishing the "Cumulated Index Medicus," independently of the National Library.

In publishing this index the A.M.A. will use cumulative copy, in the form of film negatives, prepared and furnished by the National Library of Medicine.

Dr. Rogers said the mechanized system will revolve around a new type camera (Eastman) which is capable of photographing text material at the rate of 230 cards per minute. The camera not only reduces printing costs, he said, but also speeds up production, which is all important because of the pressing need by physicians to have notice of current literature as quickly as possible.

Dr. Rogers said that the savings incurred in the production operation make it possible to expand coverage to currently published medical periodicals not presently covered by any index.

SILICON HAIR CURLERS PRESENT OCCUPATIONAL DISEASE PROBLEM

Silicon hair curlers may produce an invisible but terribly painful skin disease among hairdressers, two University of Pennsylvania dermatologists have warned.

Writing in the Journal of the American Medical Association, Drs. Walter B. Shelley and Donald M. Pillsbury said the disease consists of excessively sensitive fingertips, although the skin shows no sign of disease.

The sensitivity is due to tiny particles of silica which becomes embedded in the top layer of the skin, irritating the sensory nerve endings. The particles rub off silica or sand-coated hair curlers, which have replaced plastic curlers in many beauty shops.

The widespread use of these curlers suggests that such an invisible skin disease "may become common among beauticians unless efforts are taken to eliminate this new occupational hazard," the doctors said.

They have seen one case—in a 40-year-old woman, who first noted a marked sensitivity of the fingertips to light touch. This began on the side of

the tip of the right fourth finger. Eventually all the fingertips became involved. Pain and inflammatory changes were absent, but exquisite tenderness to touch eventually forced her to stop working.

At first it was thought the patient had a neurological or vascular condition. Treatment with a variety of local anesthetic and steroid creams was unavailing, the doctors said.

Finally microscopic examination of the fingertips showed the tiny particles embedded in the skin. Then the patient remembered that the condition had begun about the time she had started using sand-coated curlers instead of plastic curlers.

Treatment consisted of removing the very top layer of skin by microsurgery.

PIMA INDIANS FOUND TO HAVE LOW HEART DISEASE RATE

Even though they eat high-fat diets, few Pima Indians of southern Arizona develop heart disease, a new study has indicated.

Two other Indian tribes—the Sioux and Navaho—have also been found to have low rates of arteriosclerotic heart disease in spite of high-fat diets.

These findings are in contrast to those among other population groups where a high-fat intake is proportional to a high rate of heart disease and the fat is believed to play a role in the development of the disease.

The Pima Indians' health problems were studied extensively by Dr. Frank G. Hesse, formerly with the U. S. Public Service Hospital at Sacaton, Ariz., and now with the State University of New York Upstate Medical Center, Syracuse, N. Y.

The study showed that, while the Pimas have a low heart disease rate, they have a high rate of gallbladder disease and a very low rate of peptic ulcer.

Writing in the *Journal of the American Medical Association*, Dr. Hesse said that during a two-year period there were three cases of myocardial infarction (a type of heart attack) definitely

diagnosed among the 2,688 Pimas who were above 15 years of age. Three others were suspected of having myocardial infarctions, but one showed another heart condition on close examination and two died before a definite diagnosis was made.

The high rate of gallbladder disease and the low rates of heart disease and peptic ulcer (none was found in the two-year period) in a relatively inbred tribe is difficult to explain on the basis of the currently suspected causes of the diseases, Dr. Hesse commented.

This is especially true of the role of diet, which consisted mainly of beans, tortillas, coffee and hot chili peppers, with meat and vegetables eaten about once a week, and all food fried in lard. The diet is not thought to predispose to gallbladder disease, he said.

STUDY SHOWS EXTENT OF VENOM DEATHS

Nearly as many Americans die from bee stings as from rattlesnake bites, a new study has shown.

In addition, they die from the bites and stings of wasps, hornets, yellow jackets, ants, cottonmouth moccasins, coral snakes, scorpions, spiders and sting rays.

Dr. Henry M. Parrish, University of Vermont College of Medicine, Burlington, studied the death certificates of all persons in the United States who died from bites and stings of venomous animals and insects during the five-year period 1950 through 1954. The study is reported in *Archives of Internal Medicine*, published by the American Medical Association.

There were 215 deaths, with an average age of 43 a year, and an average death rate of 0.28 per 1 million population per year.

The Hymenoptera—bees, wasps, hornets, yellow jackets, and ants—killed 86 persons (40 per cent), while poisonous snakes—rattlers, cottonmouth moccasins, coral and unidentified—killed 39 persons (18 per cent). Rattlesnakes killed 55 persons, while bees killed 52.

More children died of snake bite than

from bee stings, apparently because bee sting deaths are actually severe allergic shock reactions and the person must previously have been sensitized to the insect venom. In addition, children get a proportionately larger amount of snake venom according to body weight than do adults, Dr. Parrish said.

Other animals and insects causing death were scorpions (5), spiders (39), Portuguese man-of-war (1), and sting ray (1). Twelve other deaths were caused by unknown animals and insects.

Centipedes, millipedes, Gila monsters, poisonous fishes, copperhead moccasins and tarantulas were not reported to have produced any deaths. This does not mean that they are not poisonous, but it does indicate that they are not a major source of human deaths in the United States, Dr. Parrish noted.

He believes that previous estimates of the incidence of bites and stings by venomous animal are far too low. Very likely, he said, deaths in the United States from venomous animals are attributed to other causes on death certificates. This is especially true of Hymenoptera-caused deaths, since these allergic shock reactions are easily misdiagnosed, he said.

The study also showed:

—Males were fatally bitten and stung about 2.6 times as often as females.

—Usually several hours elapsed between the snake and spider bites and the victims' deaths, while most deaths from Hymenoptera stings happened within one hour after the sting. These deaths were attributed to the shock reaction to insect allergy.

—Deaths were reported in 34 of the 48 states. The highest average death rates per 1 million were found in Arizona, Georgia, Texas, Florida and Mississippi.

—Deaths from poisonous spider bites were reported in 16 states. The regions with the highest average death rates were West South Central, East South Central and South Atlantic. No deaths were reported in the New England and

Middle Atlantic regions.

—The *Latrodectus* spiders are usually considered to be the only poisonous spiders in the United States. The best known of the three species is the *Latrodectus mactans* or "black widow." At least one species is found in every state.

In commenting on the study, Dr. Parrish said that, while venom poisoning can hardly be classed as a major medical problem, it is much commoner than formerly recognized.

Most previous estimates of the number of bites and stings by venomous animals and insects probably are far too low, he said, perhaps because they were based on medical journal reports (where only unusual or severe cases are reported) and news stories.

Since venomous insects and animals are found in every state, "it behooves a physician to find out which species are indigenous to his state, to become familiar with the clinical manifestations of venom poisoning, and to keep up with the latest therapy . . .," Dr. Parrish concluded.

Safety Tips

Memo to motorists: Be especially watchful on Saturdays for bike riders. That's the day most bike accidents occur, according to the National Safety Council.

* * *

Traffic accidents, the National Safety Council says, injuries 150,000 children 5-14 years of age each year.

* * *

Tip to teenage drivers from the National Safety Council: "Be proud of your driving. Do your part to prove teenagers can be the best drivers on the road."

* * *

One out of 12 students injured in a "school-jurisdiction" accident is on his way to or from school, the National Safety Council says.

